ZS-SN10

SERVICE MANUAL

US Model
Canadian Model
E Model
Australian Model

Ver. 1.2 2005.07

US and foreign patents licensed from Dolby Laboratories.

Model Name Using Similar Mechanism	CFD-E95
Optical Pick-up Block Name	KSM-213CDP
Optical Pick-up Name	KSS-213C

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US model only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 3.2-ohm loads, both channels driven from 150 - 6,300 Hz; rated 1.8 W per channel-minimum RMS power, with no more than 10 % total harmonic distortion in AC operation.

Other Specifications

CD player section

System
Compact disc digital audio system
Laser diode properties
Emission duration: Continuous
Laser output: Less than 44.6 µW
(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)
Spindle speed
200 r/min (rpm) to 500 r/min (rpm) (CLV)
Number of channels
2
Frequency response
20 - 20 000 Hz +0/–1 dB
Wow and flutter
Below measurable limit

Radio section

Frequency range
US, CND, E, MX, TW models:
FM: 87.5 - 108 MHz
AM: 530 - 1710 kHz
SP, KR, TH, AUS models:
FM: 87.5 - 108 MHz
AM: 531 - 1611 kHz (9 kHz step)
530 - 1610 kHz (10 kHz step)
IF
FM: 10.7 MHz
AM: 450 kHz
Antennas
FM: Telescopic antenna
AM: Built-in ferrite bar antenna

General

Speaker
Full range: 10 cm (4 in.) dia., 3.2 Ω, cone type (2)
Input
LINE IN jack (stereo minijack):
Minimum input level 330 mV
Outputs
Headphones jack (stereo minijack):
For 16 - 64 Ω impedance headphones
Power output
2.3 W + 2.3 W (at 3.2 Ω, 10 % harmonic distortion)
Power requirements
For player:
US, CND, E, MX, TW models:
120 V AC, 60 Hz
SP, TH, AUS models:
230 V AC, 50 Hz
KR model:
220 V AC, 60 Hz
9 V DC, 6 size D (R20) batteries
For remote control:
3 V DC, 2 size AAA (R03) batteries
Power consumption
16 W
Battery life
For player:

CD playback	
Sony R20P: approx. 2 h	
Sony alkaline LR20: approx. 8 h	
Radio reception	
Sony R20P: approx. 10 h	
Sony alkaline LR20: approx. 25 h	

Dimensions
Approx. 500 × 145 × 230 mm (w/h/d)
(19 3/4 × 5 3/4 × 9 1/8 inches) (incl. projecting parts)
Mass
Approx. 3.8 kg (8 lb. 6 oz) (incl. batteries)
Supplied accessories
AC power cord (1) (US, CND, E, MX, TW models)
Mains lead (1) (SP, KR, TH, AUS models)
Remote control (1)
CD-ROM (SonicStage) (1)
SonicStage Installation/Operating Guide (1)

Design and specifications are subject to change without notice.

- Abbreviation
  AUS : Australian model
  CND: Canadian model
  KR : Korean model
  MX : Mexican model
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model

PERSONAL AUDIO SYSTEM

9-879-649-03
2005G05-1
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Sony Corporation
Personal Audio Group
Published by Sony Engineering Corporation

SONY

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

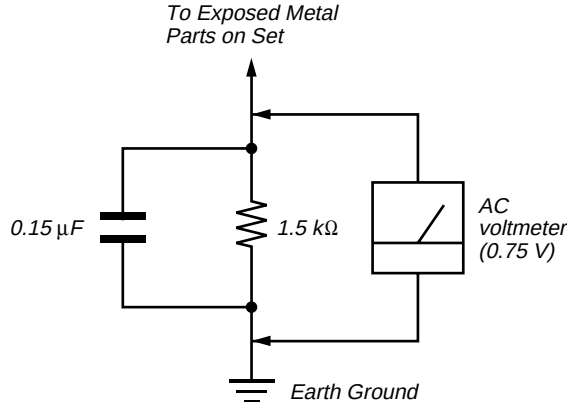

Fig. A. Using an AC voltmeter to check AC leakage.

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COM- POSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

During normal operation of the equipment, emission of the laser diode is prohibited unless the upper lid is closed while turning ON the S801. (push switch type)
The following checking method for the laser diode is operable.

- **Method**

  Emission of the laser diode is visually checked.

1. Open the upper lid.
2. Push the S801 as shown in Fig.1.

Note: Do not push the detection lever strongly, or it may be bent or damaged.

3. Press the ▶II button.
4. Check the object lens for confirming normal emission of the laser diode. If not emitting, there is a trouble in the automatic power control circuit or the optical pick-up.
   In this operation, the object lens will move up and down 2 times along with inward motion for the focus search.

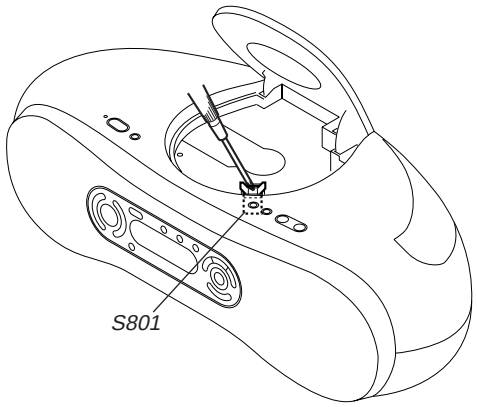
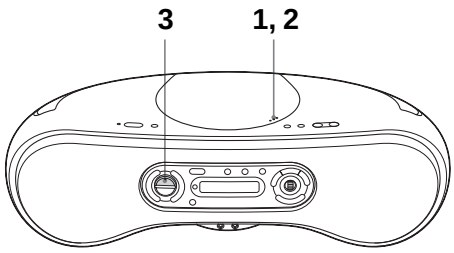


Fig.1 Method to push the S801

SECTION 2
GENERAL

This section is extracted from instruction manual.

Playing a CD



Connect the supplied AC power cord.

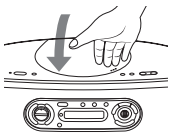
1

Press PUSH ⏏ OPEN/CLOSE to open the CD lid and place the CD on the CD tray.

With the label side up

2

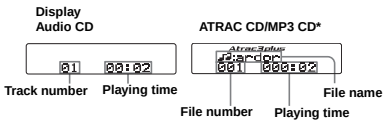
Press PUSH ⏏ OPEN/CLOSE to close the CD lid.



3

Press ▶II (► on the remote) (direct power-on).

The player plays all the tracks once.



* When playing an MP3 CD, "MP3" appears in the display.

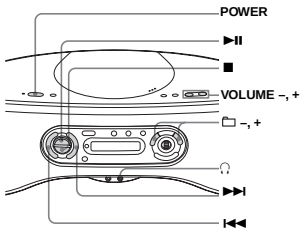
Note

Before playing an ATRAC CD/MP3 CD, this player reads all file and group information on the CD. Depending on the file structure, it may take more than a minute to read them. During this time, "Reading" is displayed.

Tips

- To listen through headphones, connect the headphones to the ∩ (headphones) jack.
- Playback starts from the track you last stopped playing (Resume play). To cancel the resume play to start play from the beginning of the first track, press ■ in stop mode.

Use these buttons for additional operations



To	Press
adjust the volume	VOLUME +*1, – (VOL +*1, – on the remote)
stop playback	■
pause playback	▶II*1 (II on the remote) Press the button again to resume play after pause.
go to the next track	▶▶I
go back to the previous track	I◀◀

*1 The button has a tactile dot.

Notes

- If ATRAC3plus files and MP3 files are recorded on the same CD, this CD player plays the ATRAC3plus first.
- The playback capability of this CD player may vary depending on the quality of the disc and the condition of the recording device.
- Characters that can be displayed on this CD player are listed below.
  – A to Z
  – a to z
  – 0 to 9
  – ! " # $ % & ' ( ) * + , - . / : ; < = > ? @ [\ ] ^ _ ` { | } ~

  If you use other characters on your computer using software such as SonicStage, they are displayed as "–" on this CD player.
- On a disc that has ATRAC3plus/MP3 files, do not save files in other formats and do not make unneccessary groups.

To	Press
select a group*2	🗀 + to go forward and – to go backward
remove the CD	PUSH ⏏ OPEN/CLOSE*3
turn on/off the player	POWER

*2 This function works for ATRAC CDs/MP3 CDs only.
*3 Once you open the CD lid, the track to start play will change to the beginning of the first track.

The structure of ATRAC CDs/MP3 CDs

ATRAC CDs/MP3 CDs consist of "files" and "groups." A "file" is equivalent to a "track" of an audio CD. A "group" is a bundle of files and is equivalent to an "album."

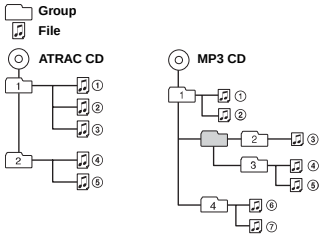
For MP3 CDs, this CD player recognizes an MP3 folder as a "group" so that ATRAC CDs and MP3 CDs can be operated in the same way.

In this manual, we use the word "track" in description of the operations available for both ATRAC CDs/MP3 CDs and audio CDs, and the word "file" for the operations available for ATRAC CDs/MP3 CDs only.

Playing order of ATRAC CDs and MP3 CDs

For ATRAC CDs, files are played in the order selected in SonicStage.

For MP3 CDs, the playing order may differ depending on the method used to record MP3 files on the disc. In the following example, files are played in order of ① to ⑦.



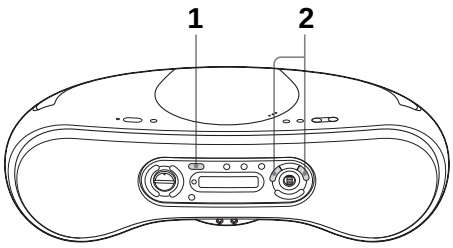
Notes on ATRAC CDs

- Maximum number of groups: 255
  Maximum number of files: 999
- CD-Rs/CD-RWs recorded in the ATRAC3plus format cannot be played on your computer.

Notes on MP3 CDs

- Maximum number of groups: 255
  Maximum number of files: 511
  Maximum directory level: 8
- A group that does not include an MP3 file is skipped.
- Be sure to add the file extension "mp3" to the file name. However, if you add the file extension "mp3" to a file other than an MP3 file, the player will not be able to recognize the file properly.
- This player can play bit rates of 32 to 320 kbps, and sampling frequencies of 32/44.1/ 48 kHz.
- To compress a source in an MP3 file, we recommend setting the compression parameters to "44.1 kHz," "128 kbps," and "Constant Bit Rate."
- To record up to the maximum capacity, set the writing software to "halting of writing."
- To record to the maximum capacity at one time up on media that has nothing recorded on it, set the writing software to "Disc at Once."

Listening to the radio

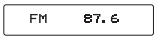


Connect the supplied AC power cord.

1

Press RADIO•BAND•AUTO PRESET repeatedly until the band you want appears in the display (direct power-on).

Display

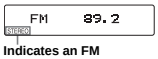


2

Hold down TUNE + or – until the frequency digits begin to change in the display.

The player automatically scans the radio frequencies and stops when it finds a clear station.

If you can't tune in a station, press TUNE + or – repeatedly to change the frequency step by step.

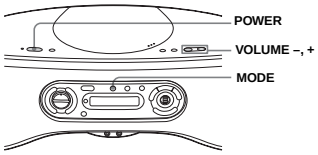


Indicates an FM stereo broadcast

Tip

If the FM broadcast is noisy, press MODE repeatedly until "Mono" appears in the display and radio will play in monaural.

Use these buttons for additional operations

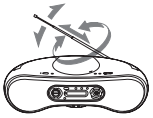


To	Press
adjust the volume	VOLUME +*, – (VOL +*, – on the remote)
turn on/off the radio	POWER

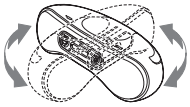
* The button has a tactile dot.

To improve broadcast reception

Reorient the antenna for FM. Reorient the player itself for AM.



for FM

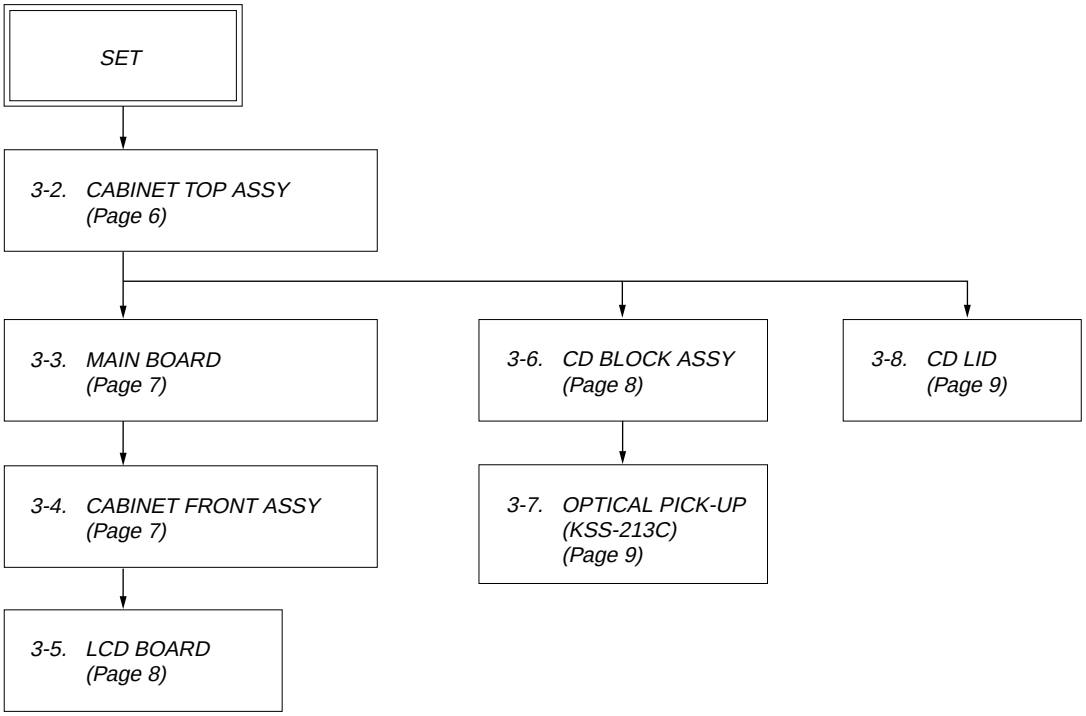


for AM

SECTION 3
DISASSEMBLY

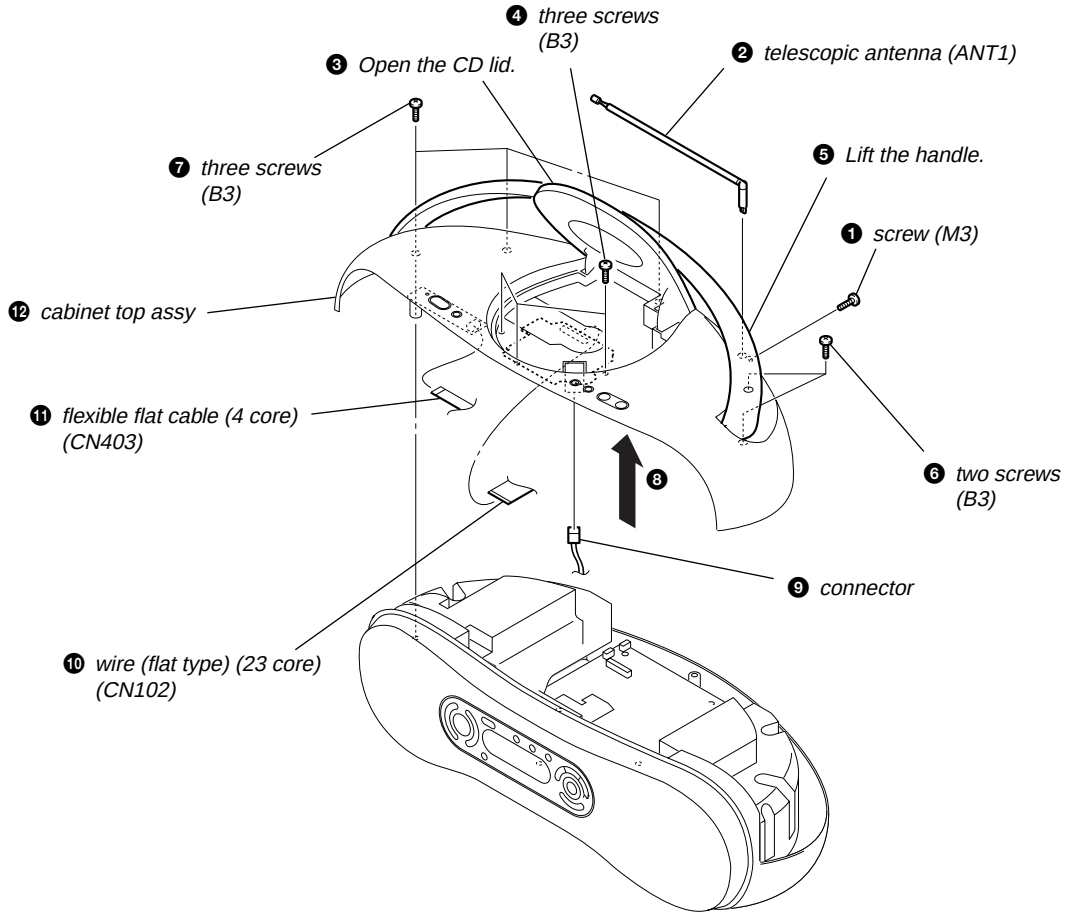
- This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

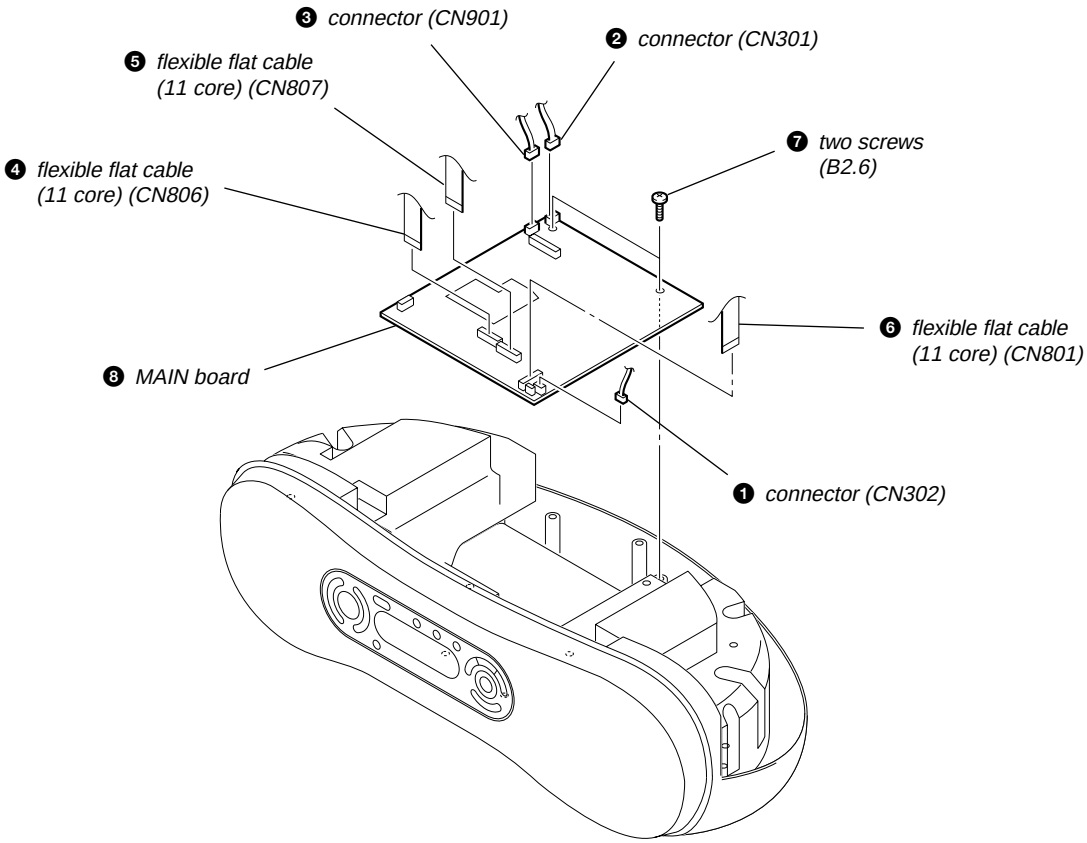

SET
3-2. CABINET TOP ASSY (Page 6)
3-3. MAIN BOARD (Page 7)
3-4. CABINET FRONT ASSY (Page 7)
3-5. LCD BOARD (Page 8)
3-6. CD BLOCK ASSY (Page 8)
3-7. OPTICAL PICK-UP (KSS-213C) (Page 9)
3-8. CD LID (Page 9)

Note: Follow the disassembly procedure in the numerical order given.

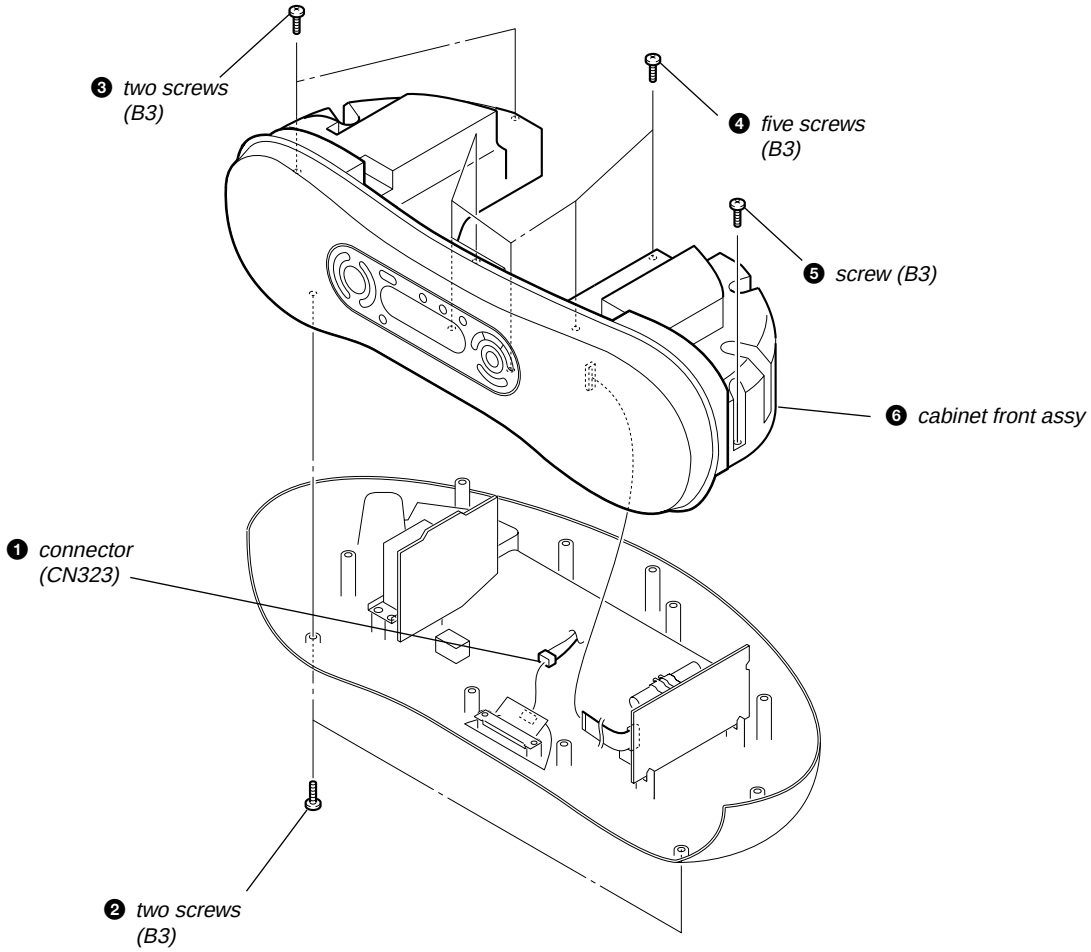
3-2. CABINET TOP ASSY


❹ three screws (B3)
❸ Open the CD lid.
❷ telescopic antenna (ANT1)
❼ three screws (B3)
❺ Lift the handle.
❶ screw (M3)
⓬ cabinet top assy
⓫ flexible flat cable (4 core) (CN403)
❽
❻ two screws (B3)
❾ connector
❿ wire (flat type) (23 core) (CN102)

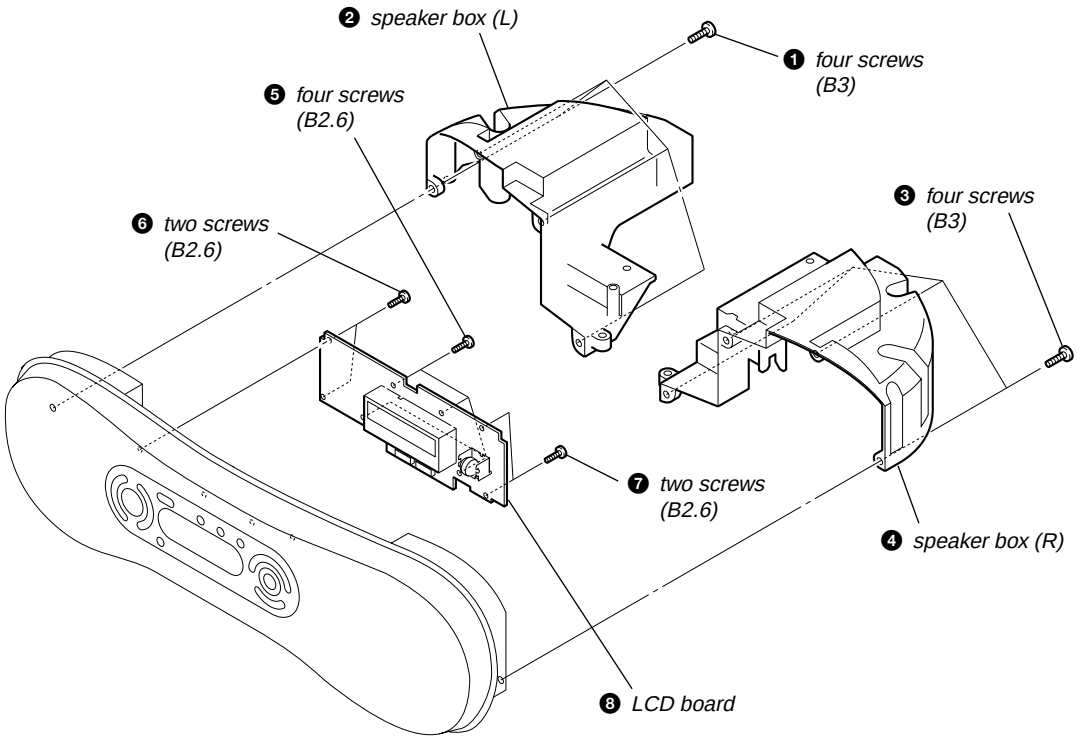
3-3. MAIN BOARD


❸ connector (CN901)
❷ connector (CN301)
❺ flexible flat cable (11 core) (CN807)
❼ two screws (B2.6)
❹ flexible flat cable (11 core) (CN806)
❻ flexible flat cable (11 core) (CN801)
❽ MAIN board
❶ connector (CN302)

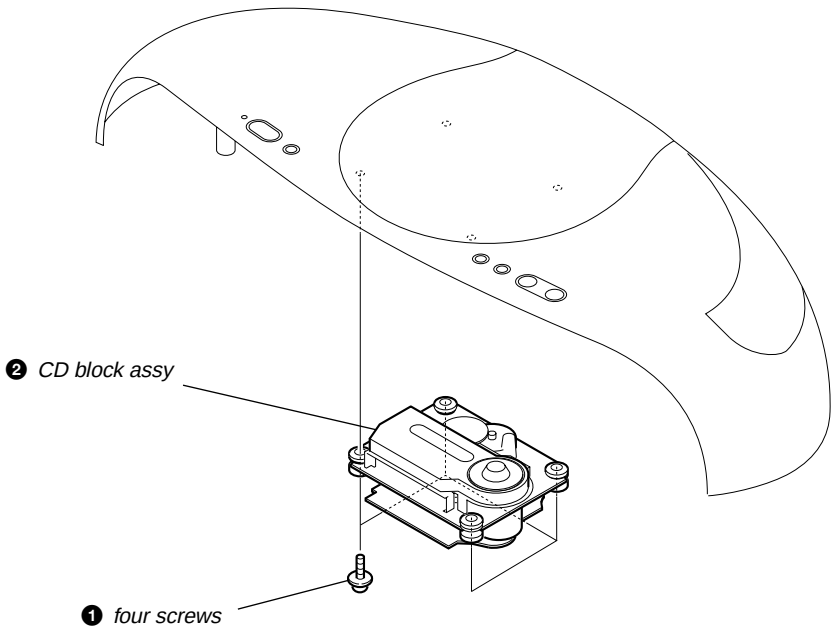
3-4. CABINET FRONT ASSY



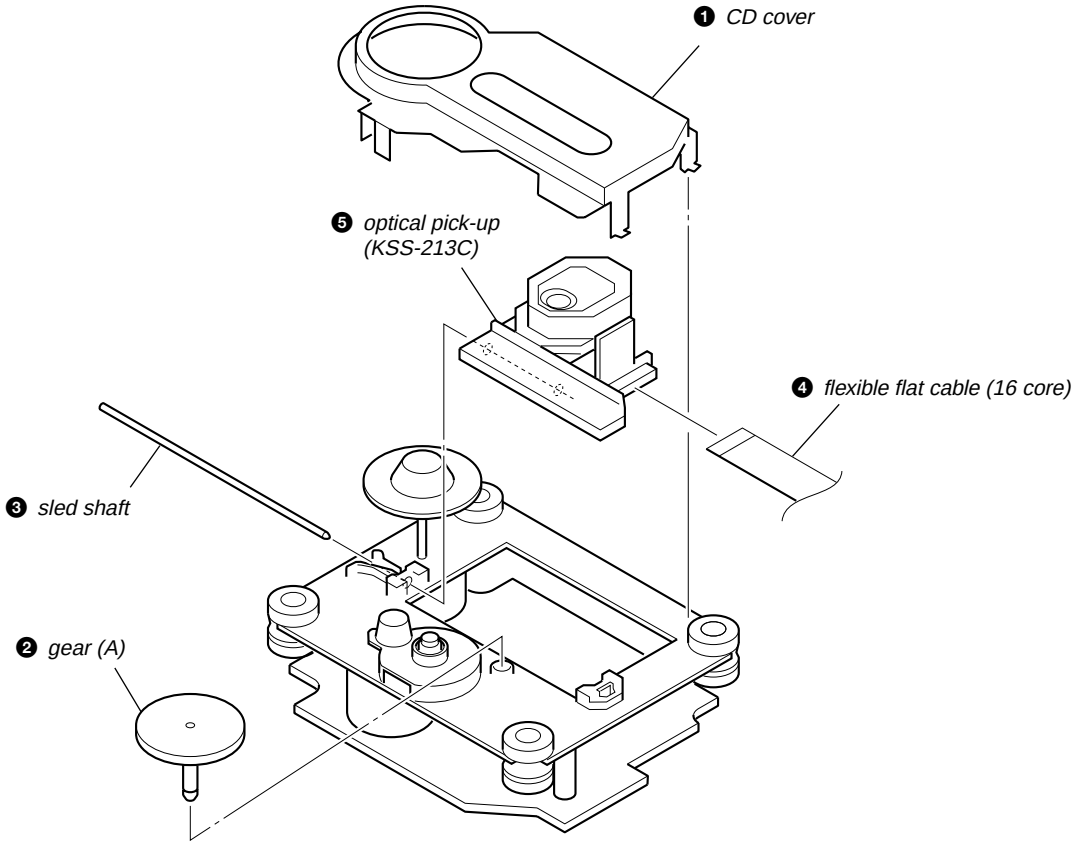
3-5. LCD BOARD



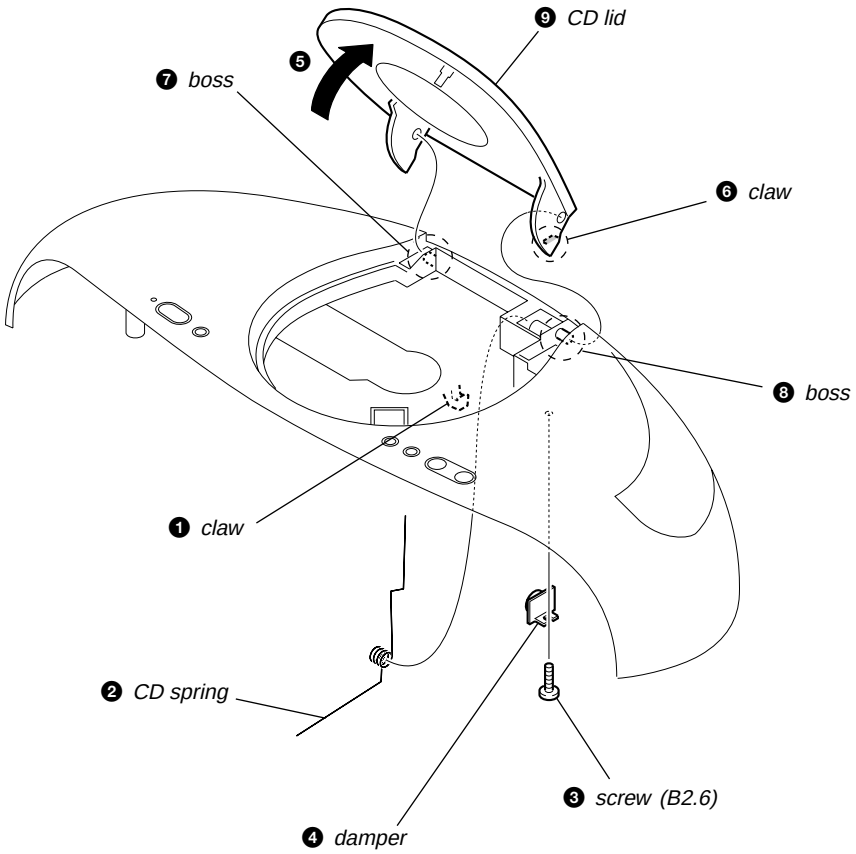
3-6. CD BLOCK ASSY



3-7. OPTICAL PICK-UP (KSS-213C)



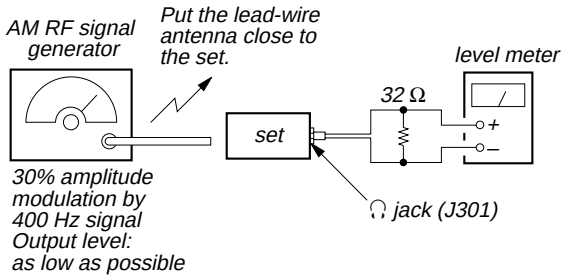
3-8. CD LID



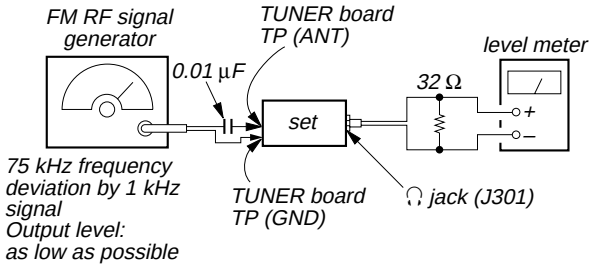
SECTION 4
ELECTRICAL ADJUSTMENTS

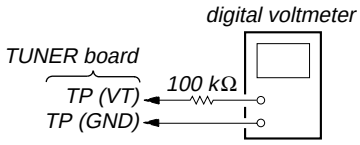
TUNER SECTION | 0 dB=1 µV

[AM]
Setting:
Function: RADIO
RADIO/BAND, AUTO PRESET button: AM



[FM]
Setting:
Function: RADIO
RADIO/BAND, AUTO PRESET button: FM





- Repeat the procedures in each adjustment several times, and the tracking adjustments should be finally done by the trimmer capacitors.
- Remove FM antenna in FM adjustment.

AM IF ADJUSTMENT	
Adjust for a maximum reading on level meter	
T1	450 kHz

( ): Singapore, Korean, Thai and Australian models

AM FREQUENCY COVERAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L4	530 kHz (531 kHz)	1.0 ± 0.05 V
Confirmation	1,710 kHz (1,611 kHz)	5.3 ± 0.7 V (5.2 ± 0.6 V)

( ): Singapore, Korean, Thai and Australian models

AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L3	620 kHz (621 kHz)
CT3	1,400 kHz (1,404 kHz)

FM IF ADJUSTMENT	
Adjust for a minimum reading on level meter	
T2	10.7 MHz

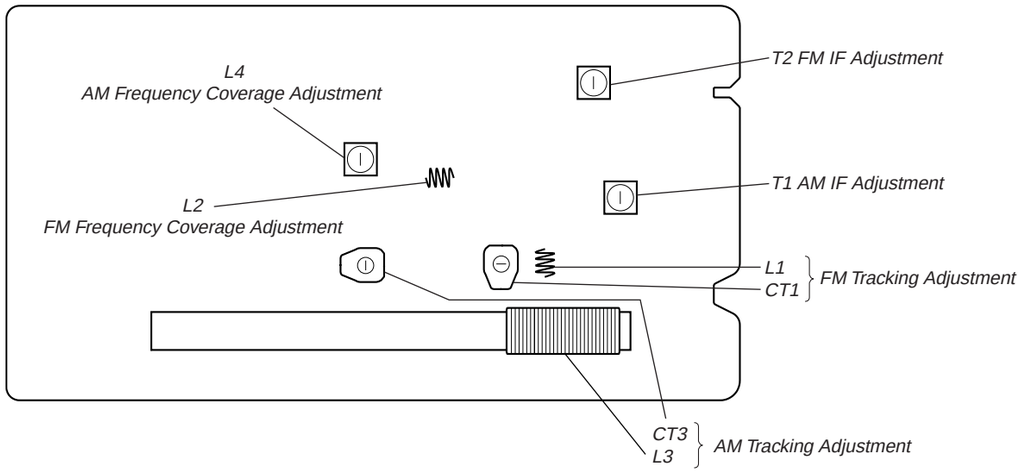
FM FREQUENCY COVERAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L2	108 MHz	3.0 ± 0.2 V
Confirmation	87.5 MHz	1.3 ± 0.3 V

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on level meter	
L1	87.5 MHz
CT1	108 MHz

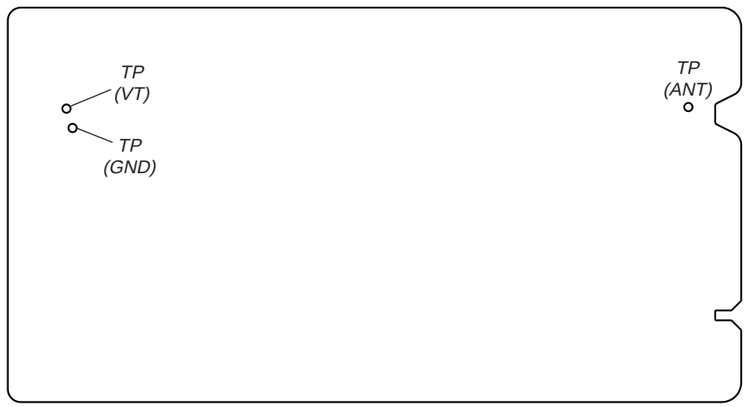
Adjustment and Connecting Location: TUNER board
(See page 11)

Adjustment and Connecting Location:

– TUNER Board (Component Side) –



– TUNER Board (Conductor Side) –



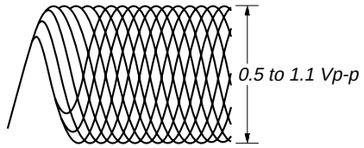
CD SECTION

FOCUS BIAS CHECK

1. Connect the oscilloscope to TP (RFACO) and TP (VC) on the CD board.
2. Insert the disc (PATD-012). (Part No.: 4-225-203-01)
3. Press the ▶II button.
4. Confirm that the oscilloscope waveform is as shown in the figure below. (eye pattern)
   A good eye pattern means that the diamond shape (◊) in the center of the waveform can be clearly distinguished.

- **RF signal reference waveform (eye pattern)**

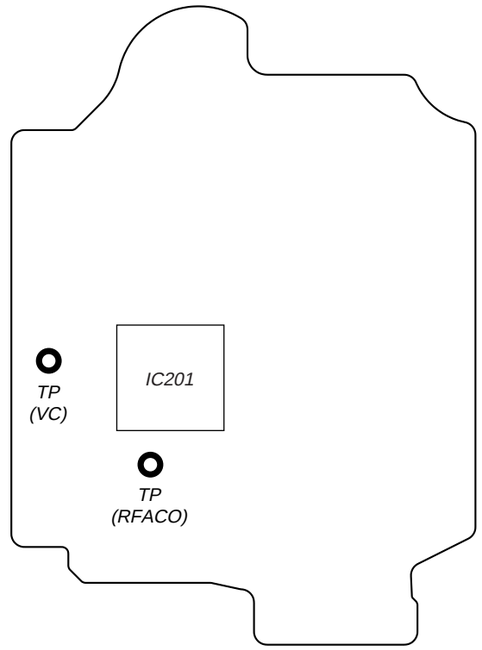
VOLT/DIV: 0.2 V (with the 10: 1 probe in use.)
TIME/DIV: 200 ns



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

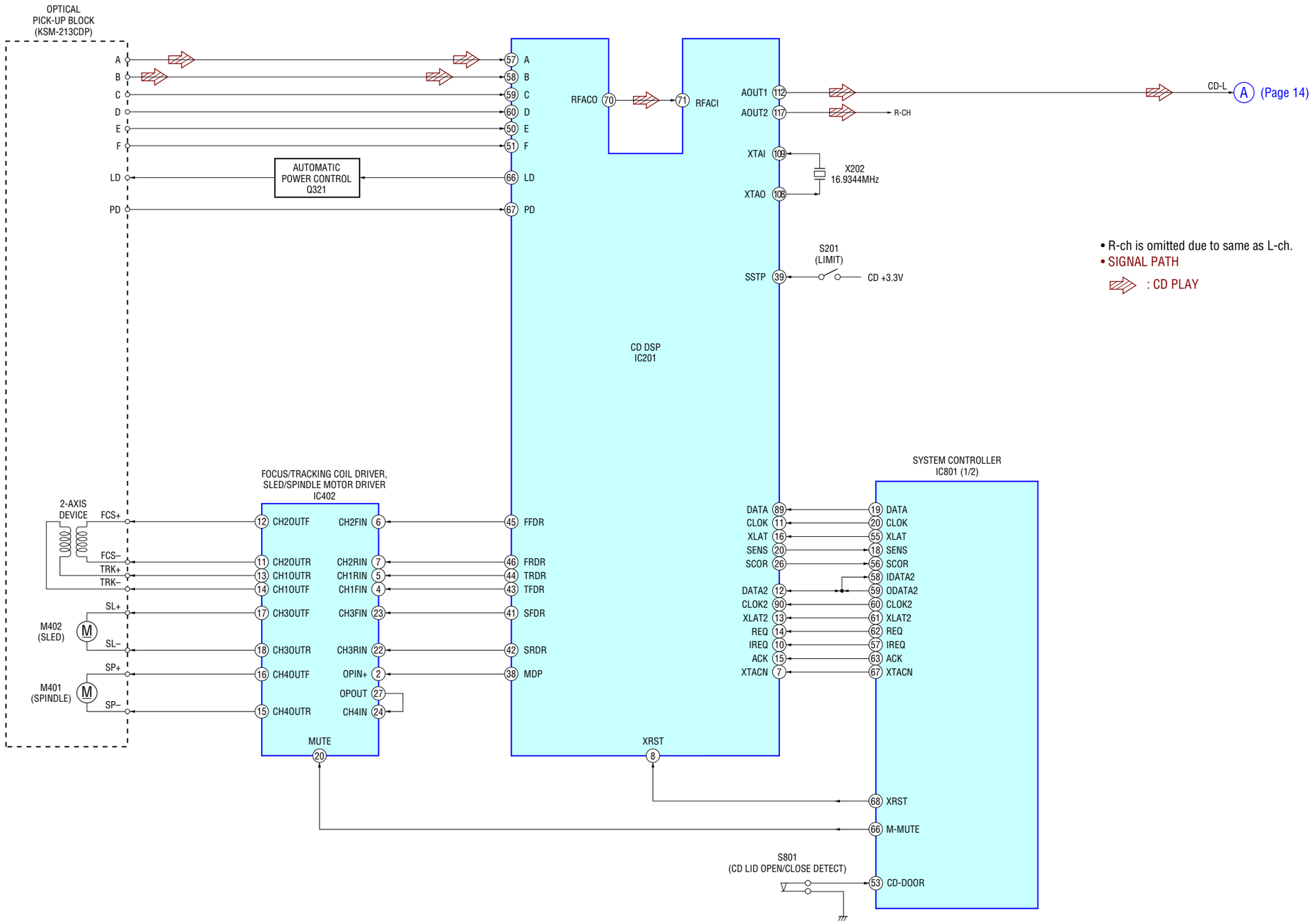
Checking Location:

– CD Board (Conductor Side) –

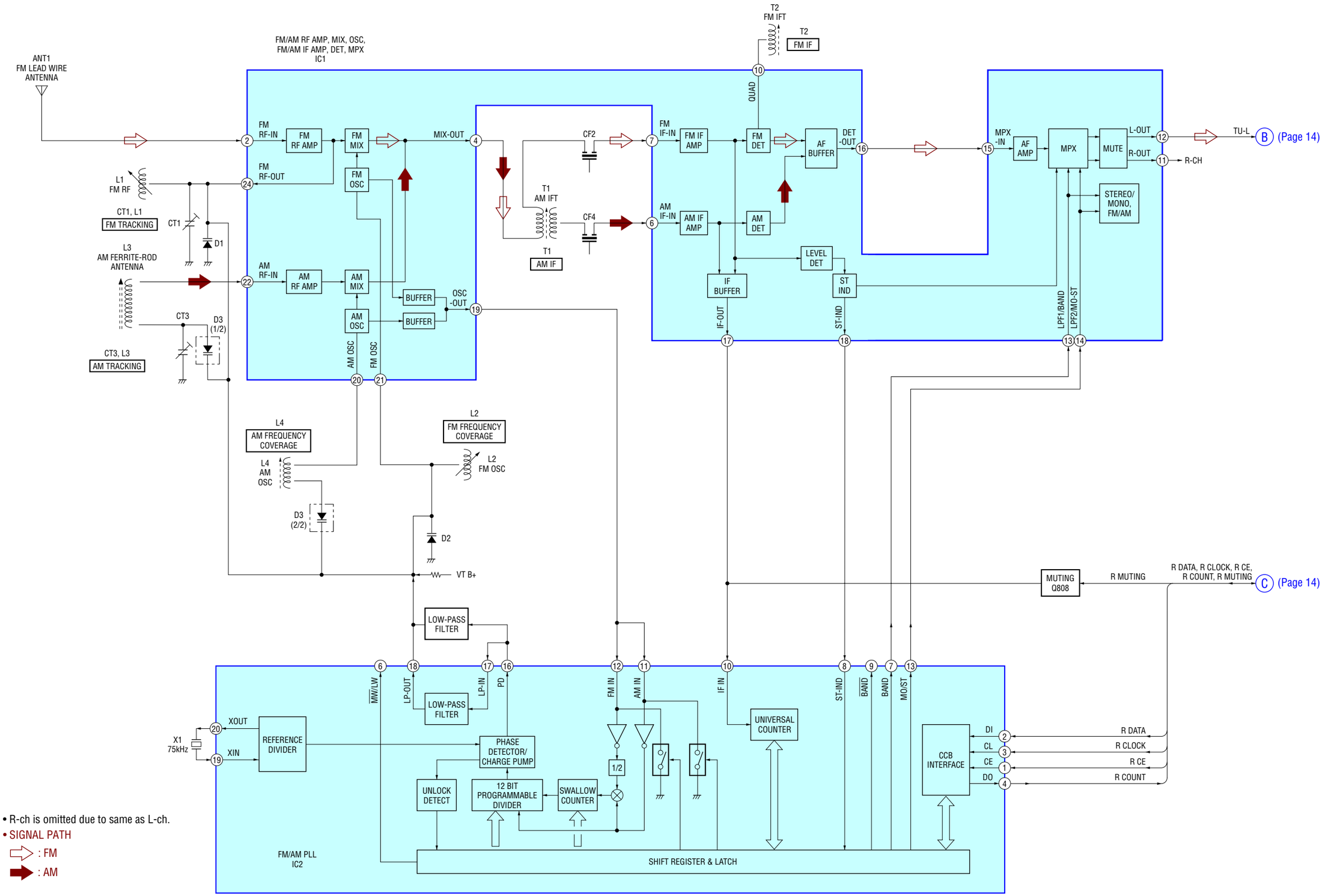


SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM – CD SERVO SECTION –

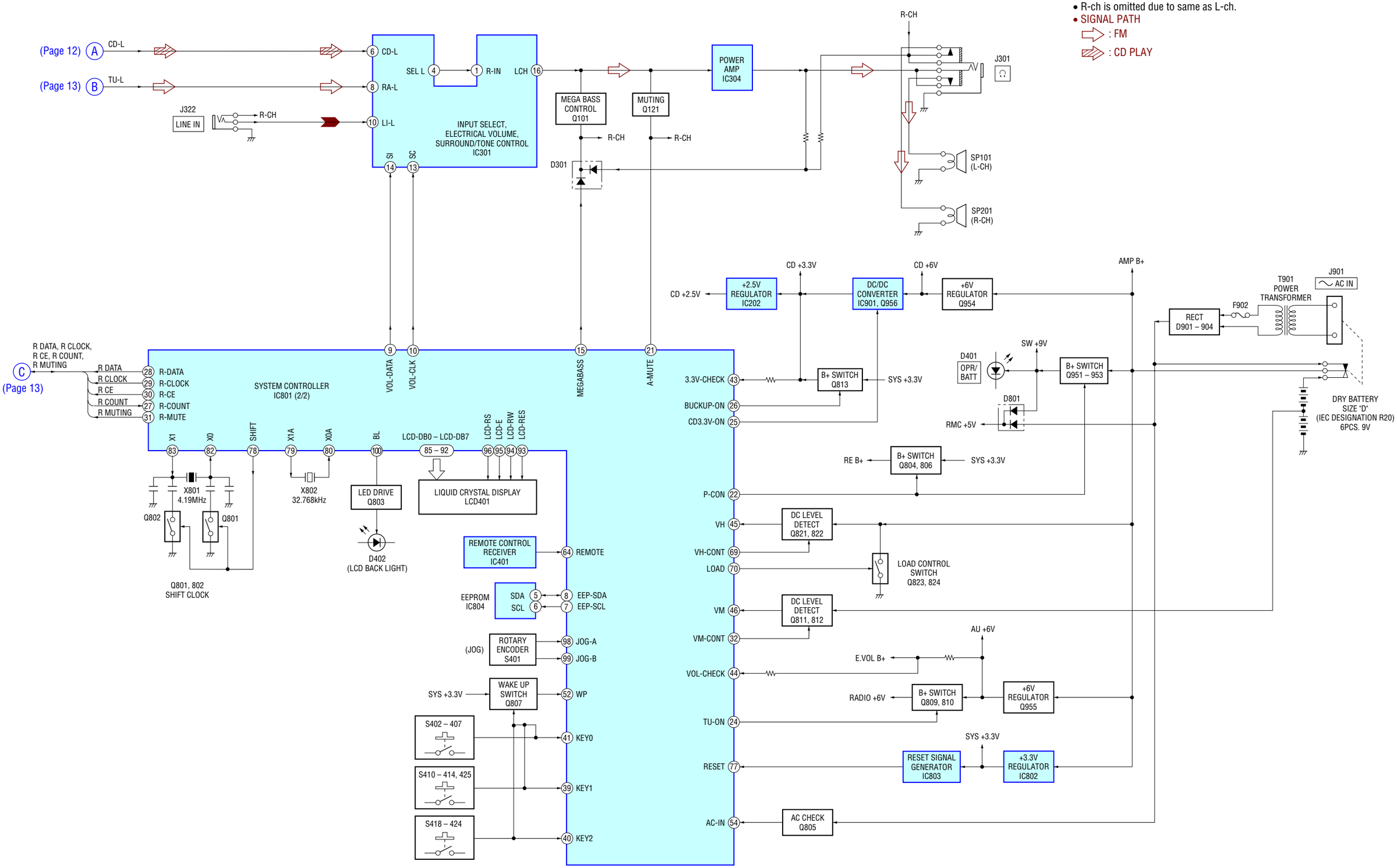


5-2. BLOCK DIAGRAM – TUNER SECTION –



- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  - ⇨ : FM
  - ➡ : AM

5-3. BLOCK DIAGRAM – MAIN SECTION –



• Note for Printed Wiring Boards and Schematic Diagrams

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ⬚← : indicates side identified with part number.
- △ : internal component.
- ▭ : Pattern from the side which enables seeing.
  (The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

Note on Schematic Diagram:

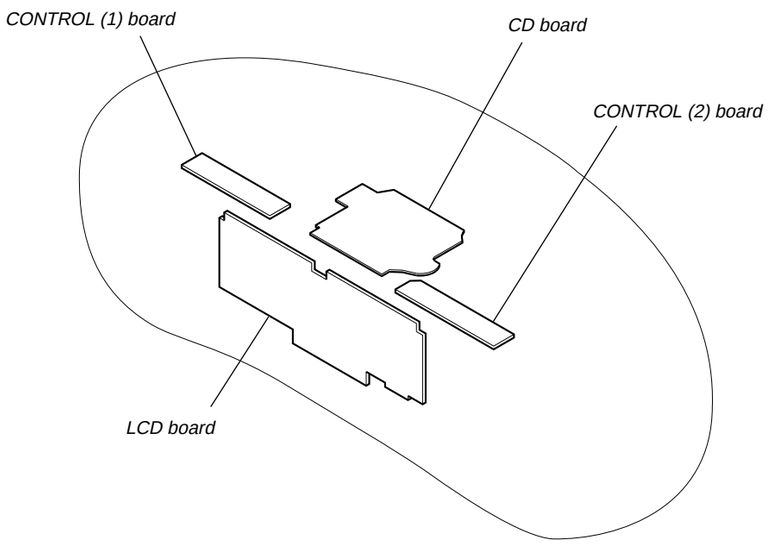
- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

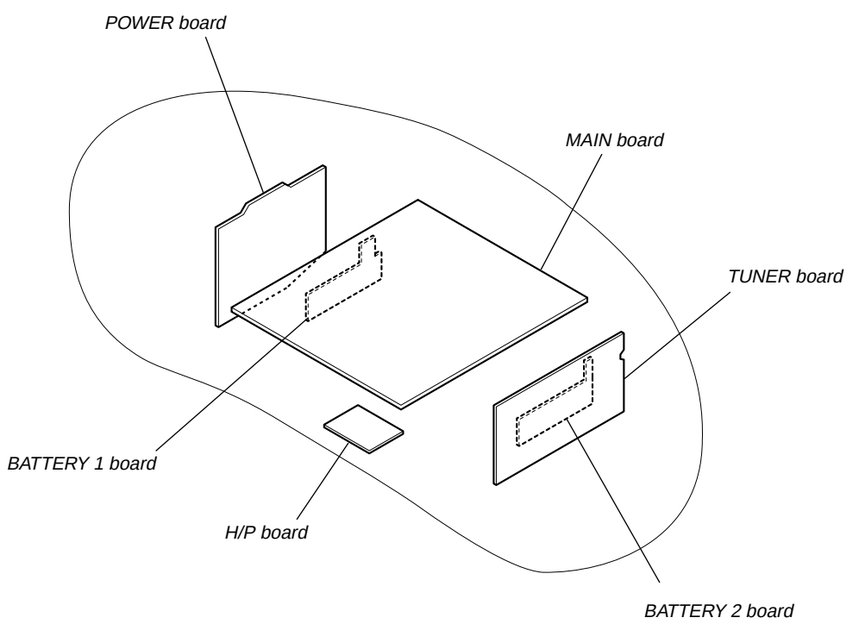
Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- ▬ : B+ Line.
- ▭ : adjustment for repair.
- Power voltage is dc 4.5V and fed with regulated dc power supply from pin ① and ② of CN902 on the BATTERY 1 board, and from pin ③ and ② as well.
  no mark : FM
  ⟨⟨ ⟩⟩ : AM
  ( ) : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ➡ : AM
  ⇨ : CD PLAY
  ➡ : LINE IN
- Abbreviation

AUS	: Australian model
CND	: Canadian model
KR	: Korean model
MX	: Mexican model
SP	: Singapore model
TH	: Thai model
TW	: Taiwan model

• Circuit Boards Location

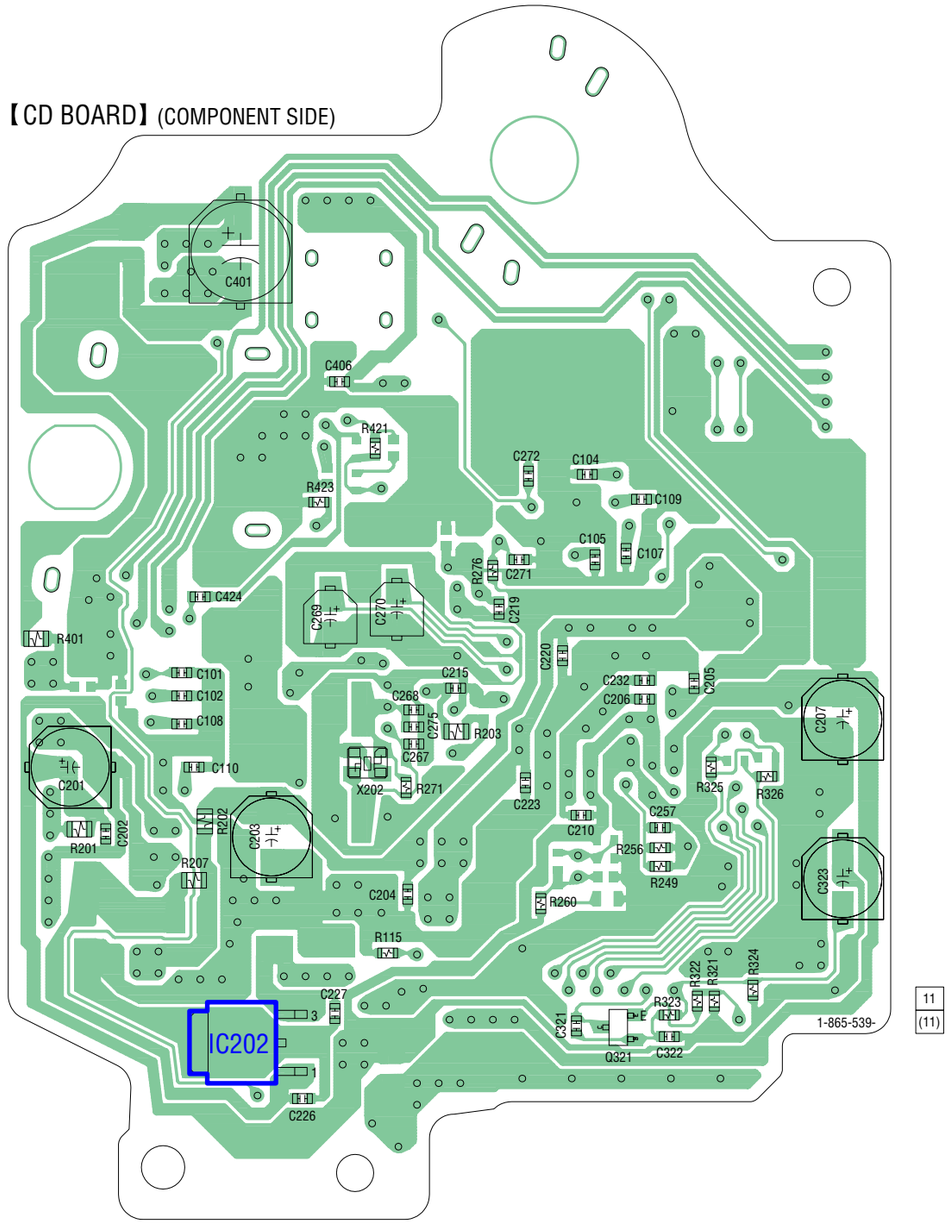




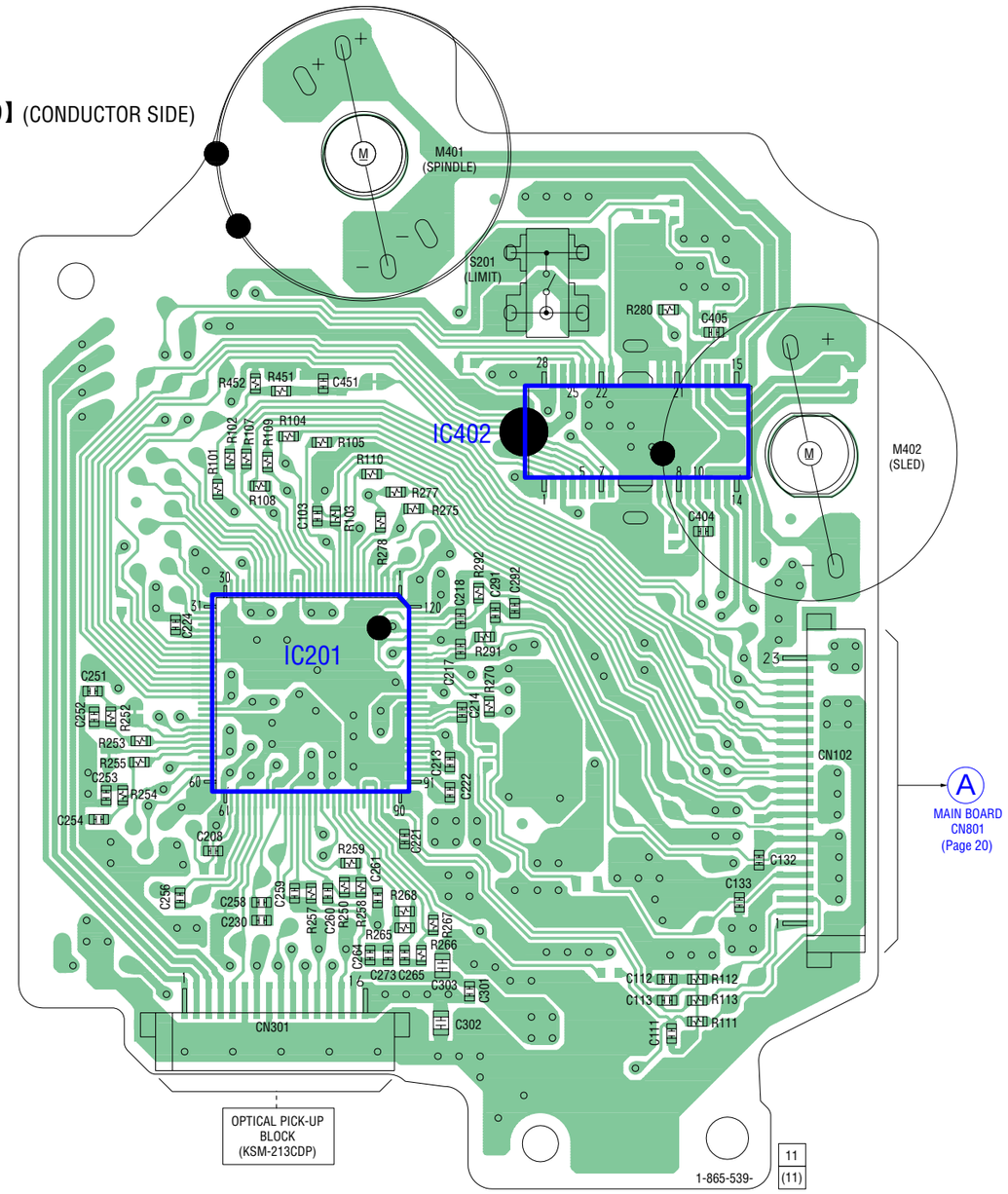
5-4. PRINTED WIRING BOARD – CD BOARD –

• See page 15 for Circuit Boards Location. :Uses unleaded solder.

【CD BOARD】(COMPONENT SIDE)

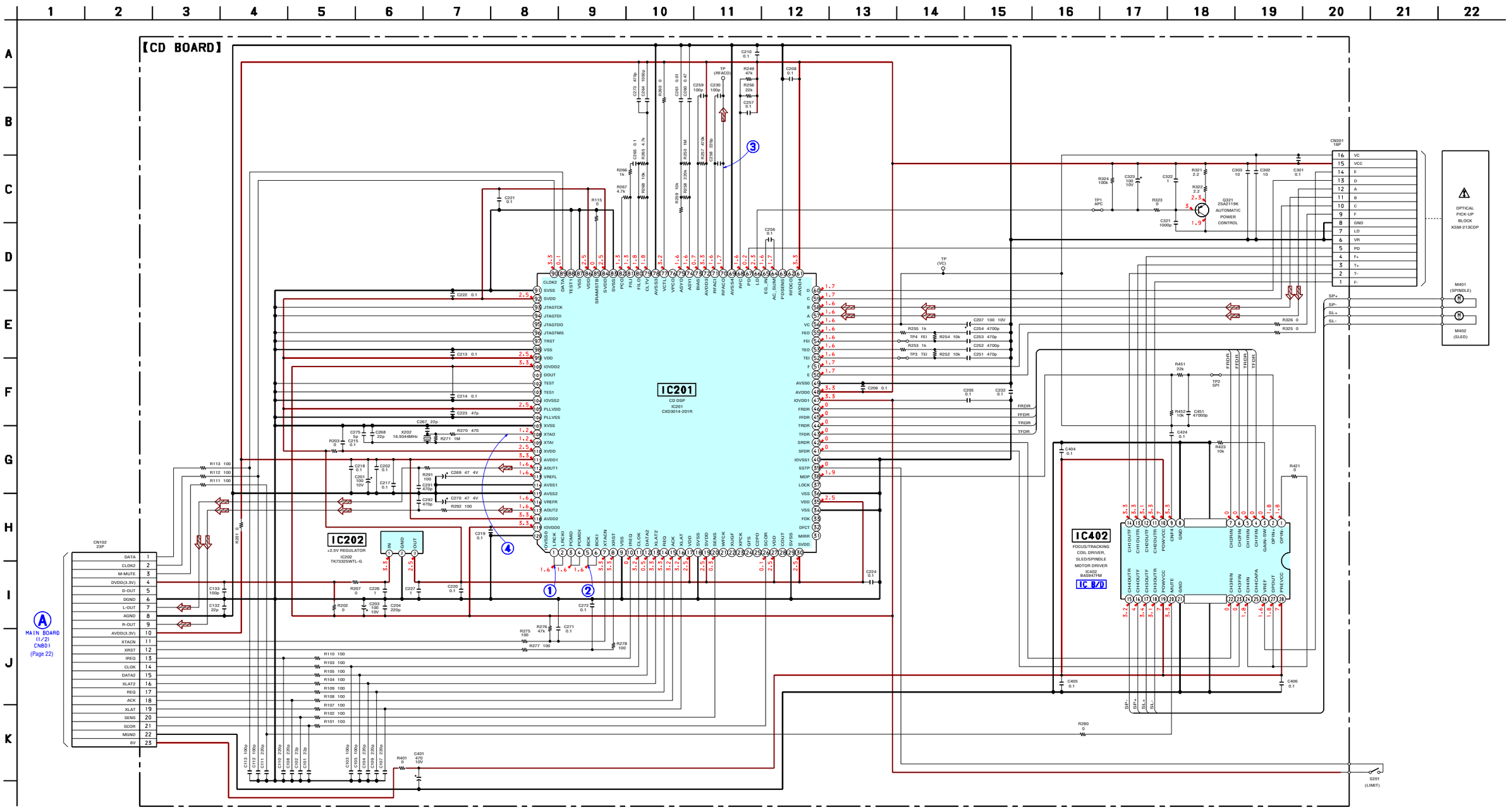


【CD BOARD】(CONDUCTOR SIDE)



5-5. SCHEMATIC DIAGRAM – CD BOARD –

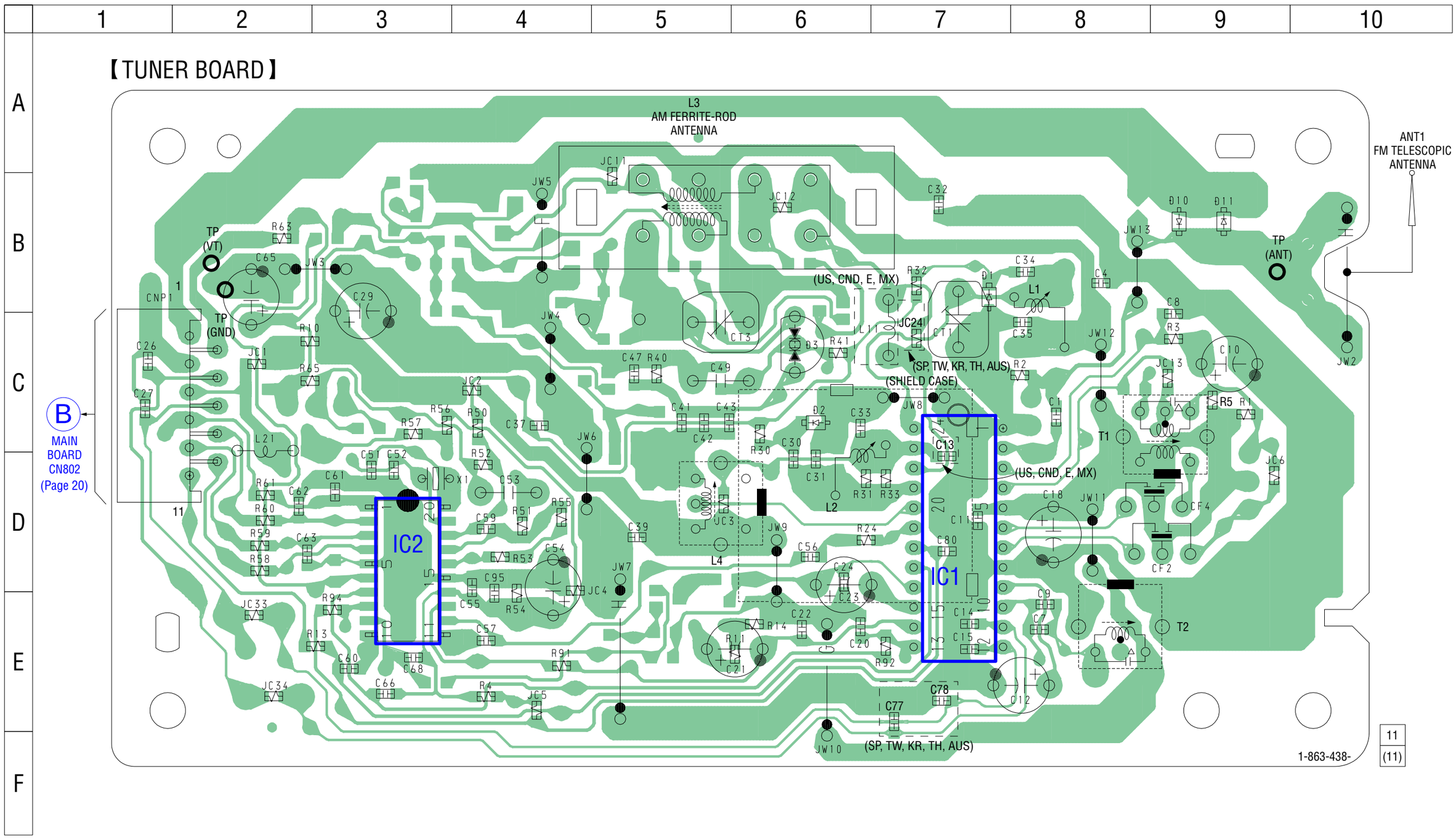
• See page 26 for IC Block Diagram. • See page 26 for Waveforms. • See page 28 for IC Pin Function Description.



5-6. PRINTED WIRING BOARD – TUNER BOARD –

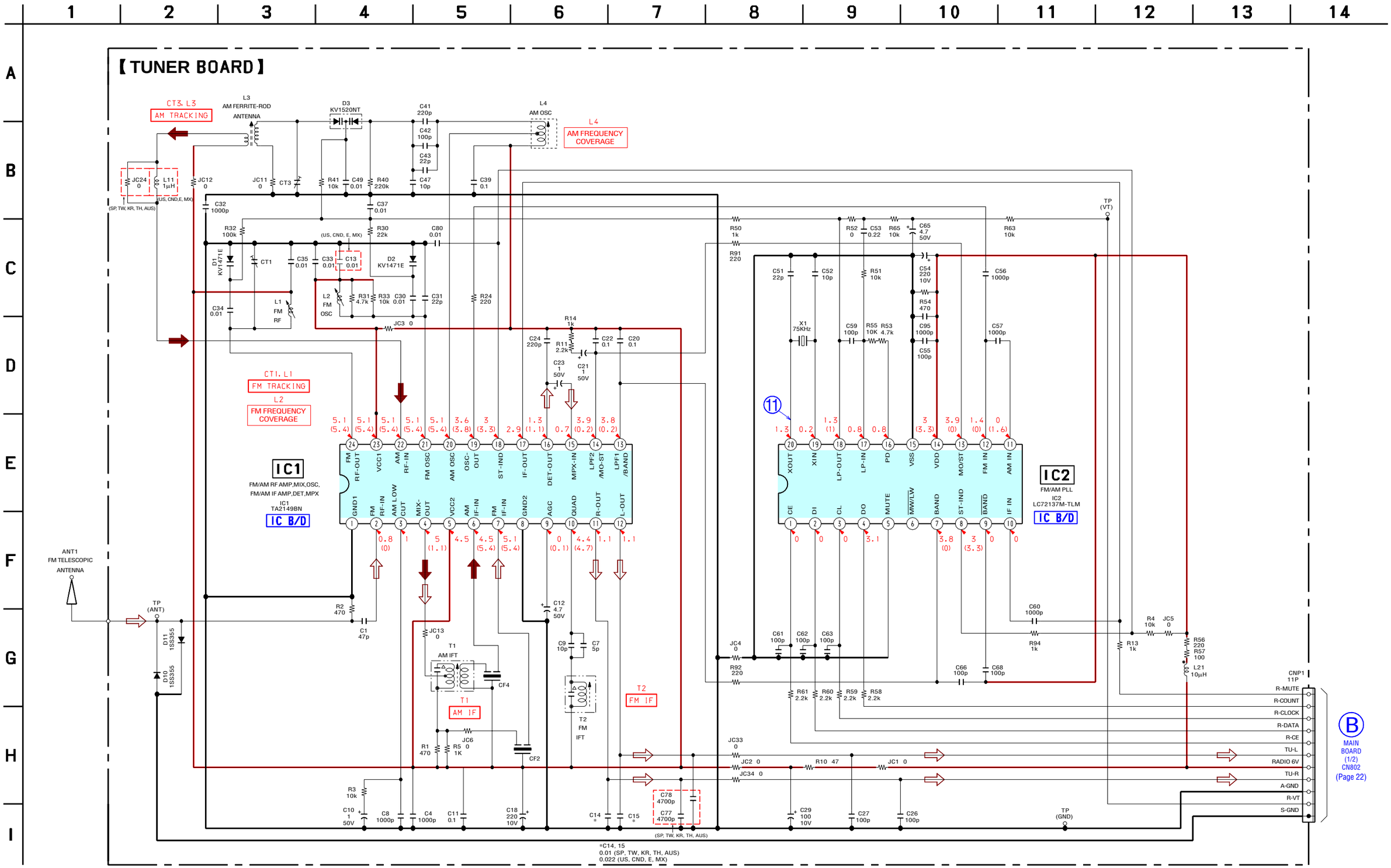
• See page 15 for Circuit Boards Location. :Uses unleaded solder.

【TUNER BOARD】



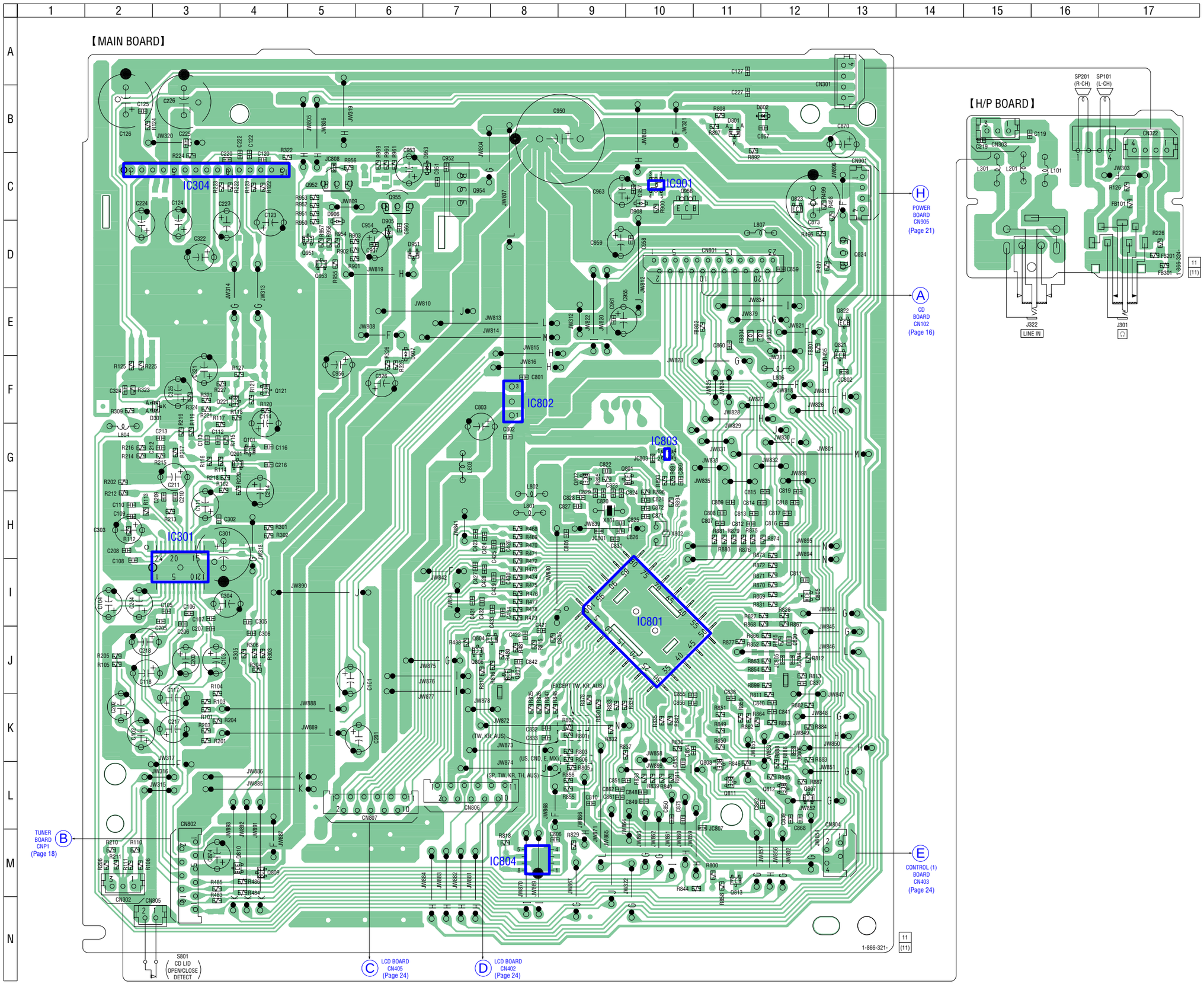
5-7. SCHEMATIC DIAGRAM – TUNER BOARD –

• See page 26 for IC Block Diagrams. • See page 26 for Waveform.



5-8. PRINTED WIRING BOARDS – MAIN SECTION –

• See page 15 for Circuit Boards Location. :Uses unleaded solder.

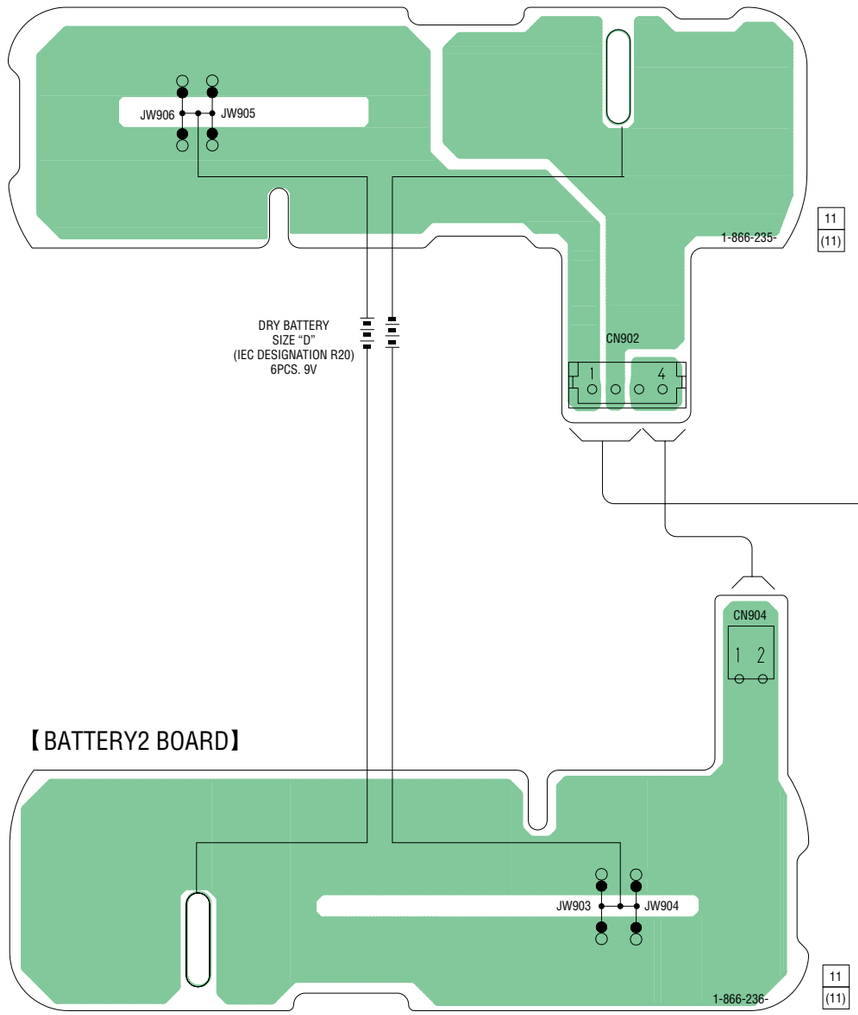


- **Semiconductor Location**

Ref. No.	Location
D301	F-3
D801	B-11
D802	B-12
D905	D-6
D906	D-5
D907	E-6
D908	D-10
D951	D-6
D953	C-7
IC301	I-3
IC304	C-3
IC801	I-10
IC802	F-8
IC803	G-10
IC804	M-8
IC901	C-10
Q101	G-4
Q121	F-4
Q201	G-4
Q221	F-4
Q801	G-10
Q802	G-9
Q803	J-8
Q804	J-8
Q805	I-12
Q806	J-7
Q807	L-12
Q808	L-11
Q809	M-4
Q810	M-4
Q811	L-11
Q812	L-12
Q813	M-11
Q821	E-13
Q822	E-13
Q823	C-12
Q824	D-13
Q951	D-5
Q952	C-5
Q953	D-5
Q954	C-7
Q955	C-6
Q956	D-10

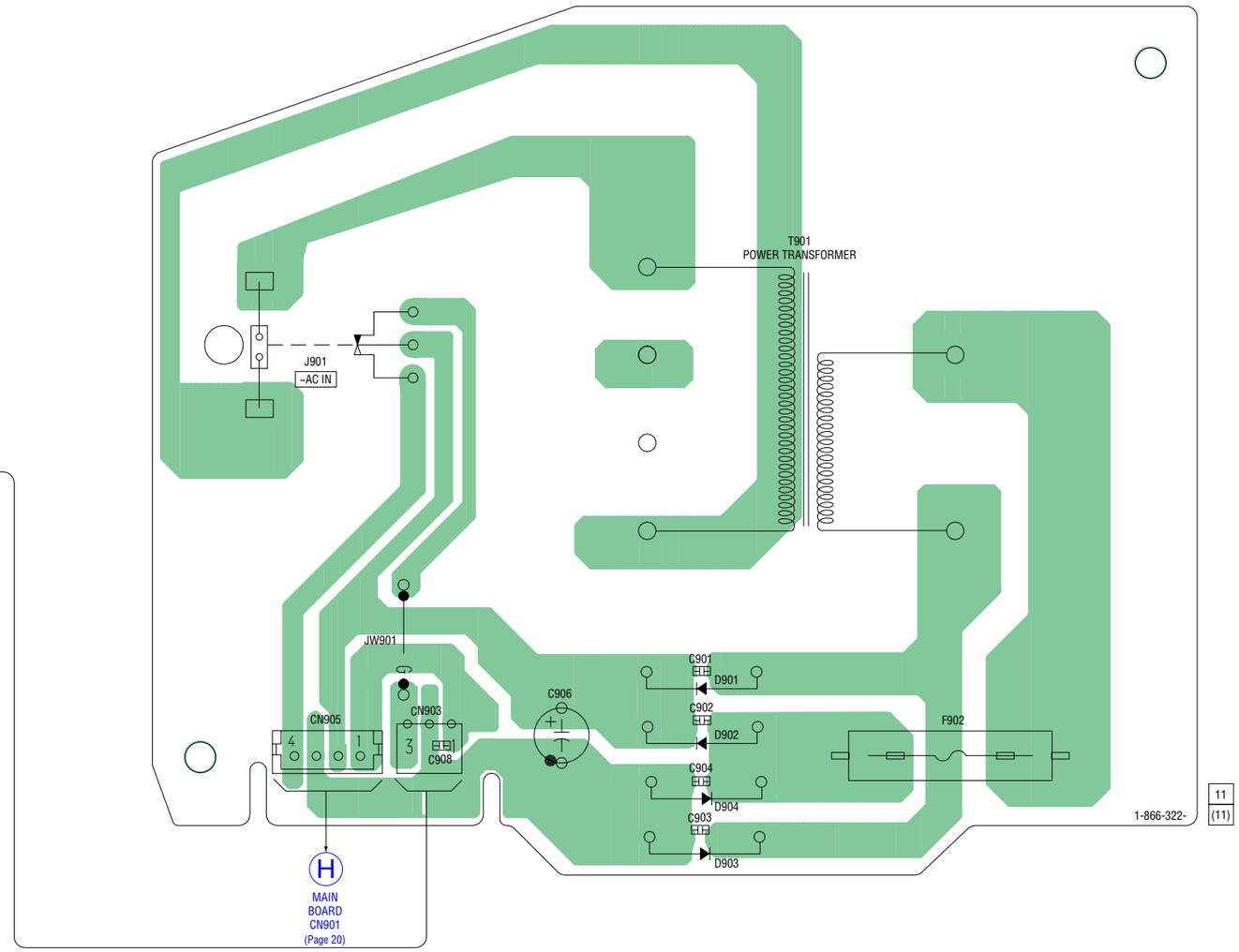
5-9. PRINTED WIRING BOARDS – POWER SECTION – • See page 15 for Circuit Boards Location. :Uses unleaded solder.

【BATTERY1 BOARD】



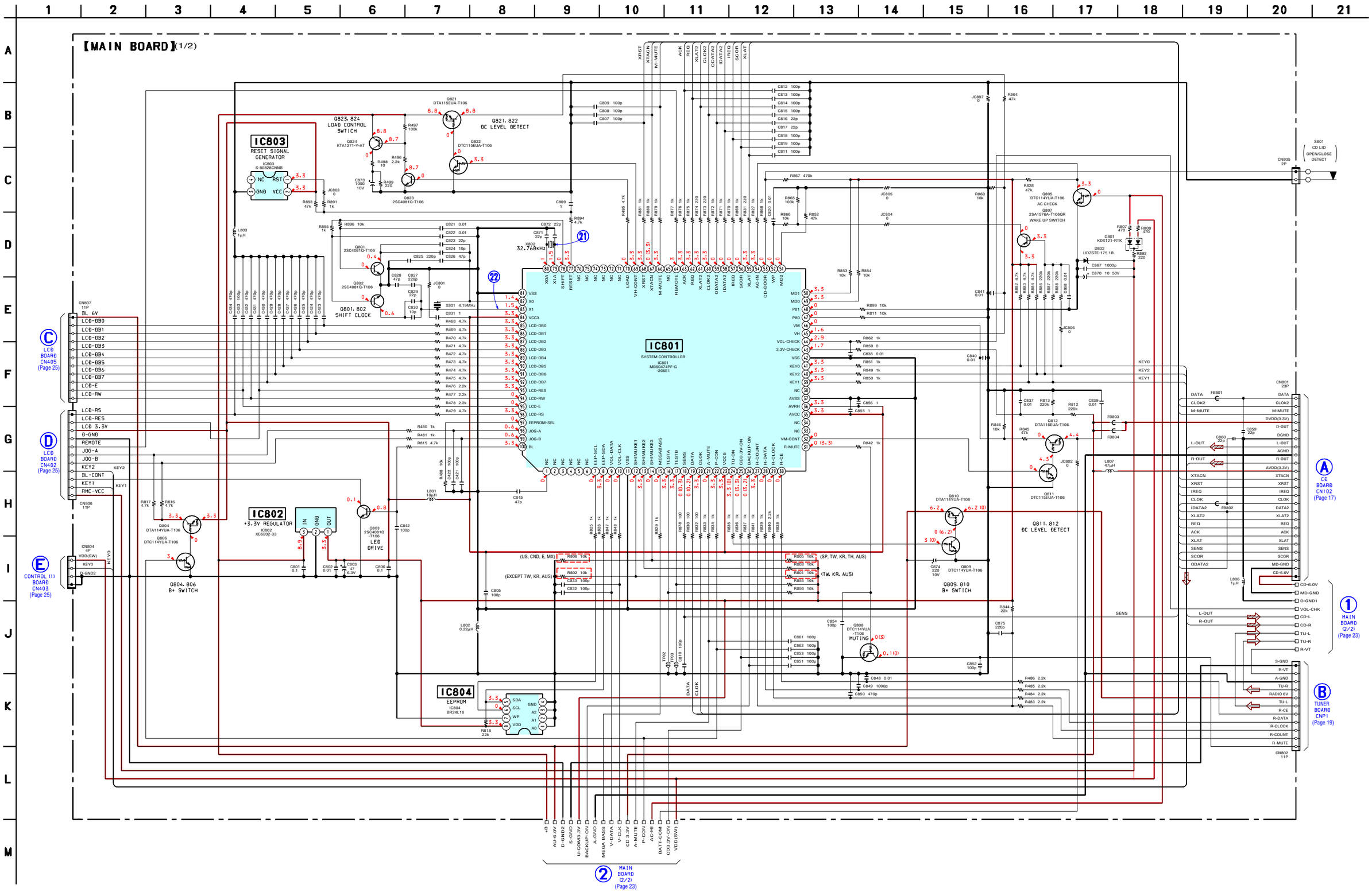
【BATTERY2 BOARD】

【POWER BOARD】



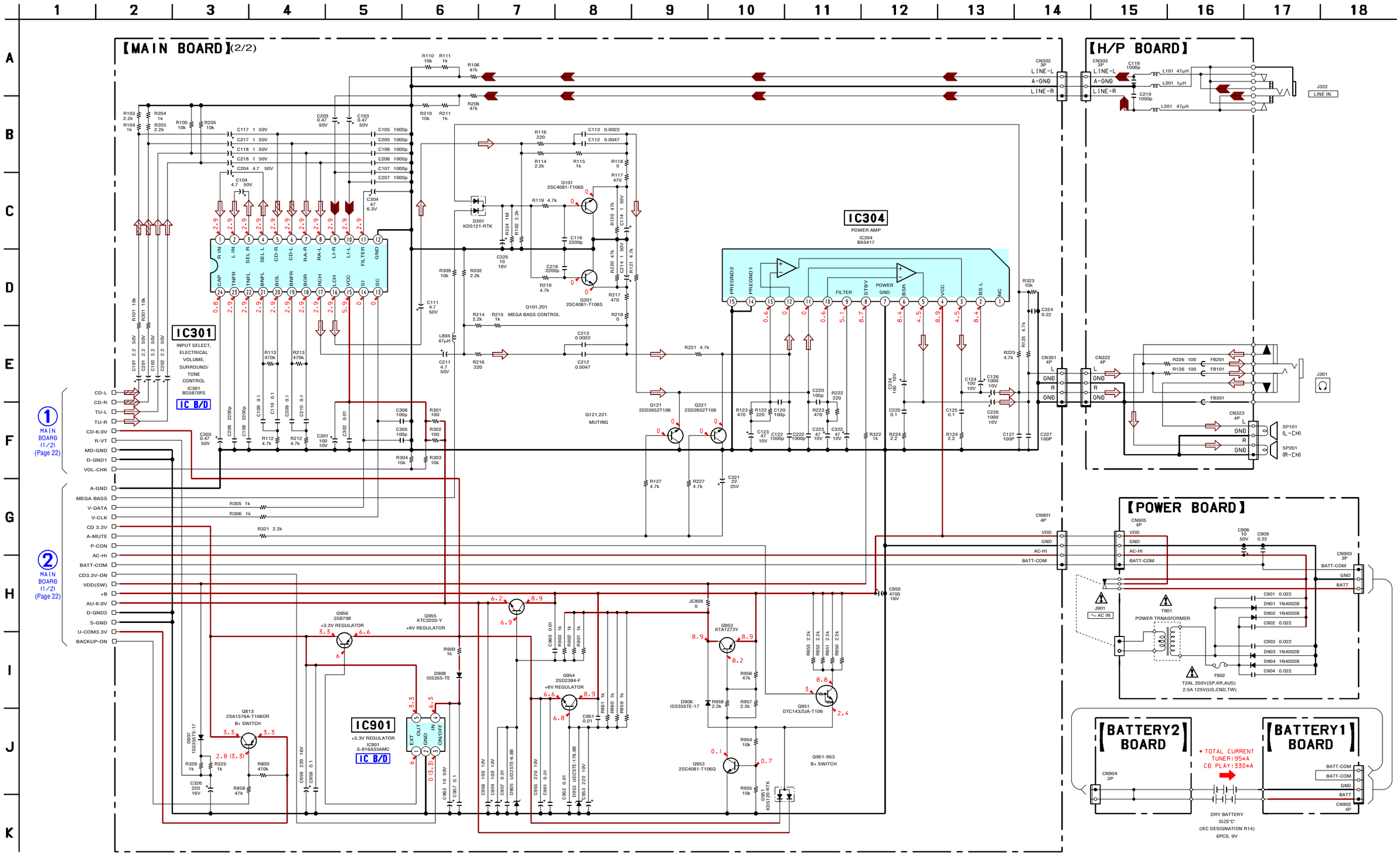
5-10. SCHEMATIC DIAGRAM – MAIN SECTION (1/2) –

• See page 26 for Waveforms. • See page 31 for IC Pin Function Description.



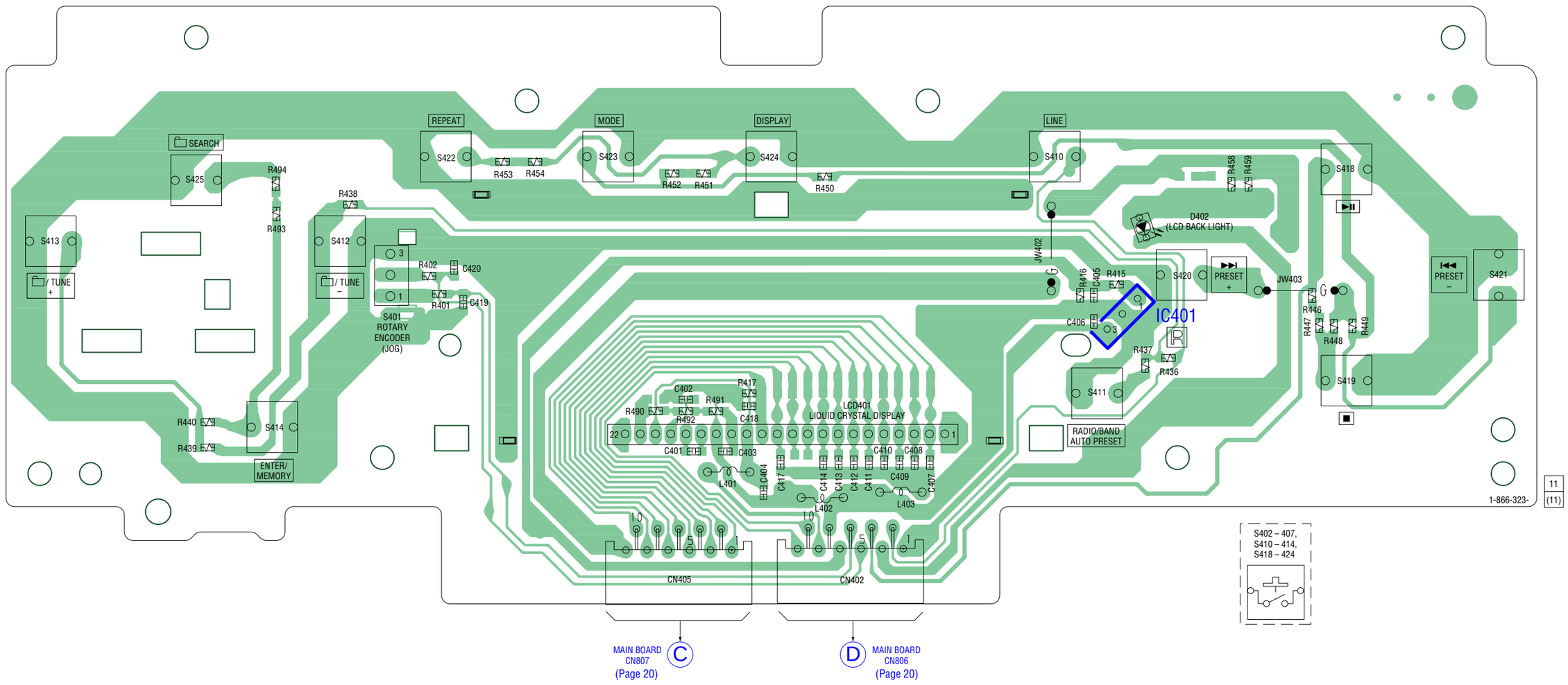
5-11. SCHEMATIC DIAGRAM – MAIN SECTION (2/2) –

• See page 27 for IC Block Diagrams.

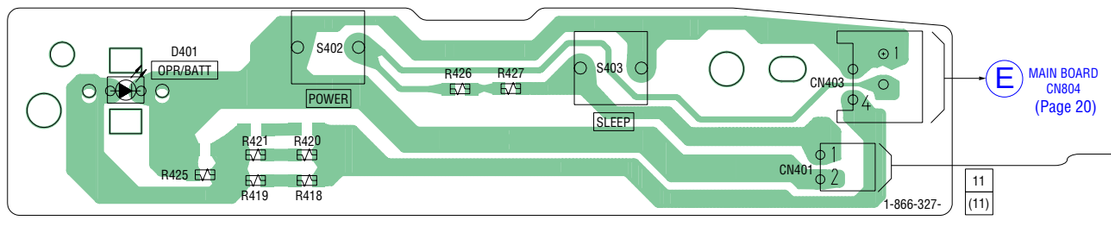


5-12. PRINTED WIRING BOARDS – PANEL SECTION – • See page 15 for Circuit Boards Location. :Uses unleaded solder.

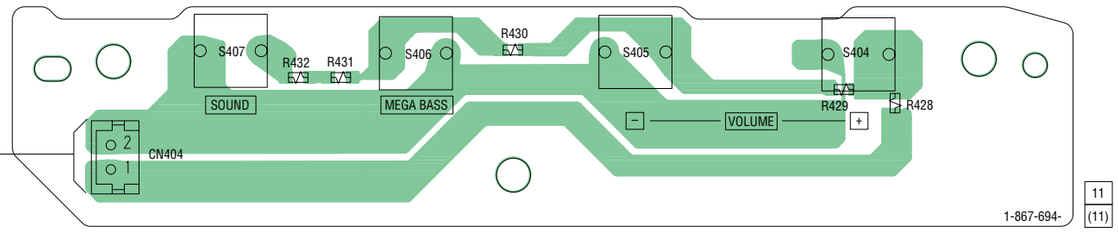
【LCD BOARD】



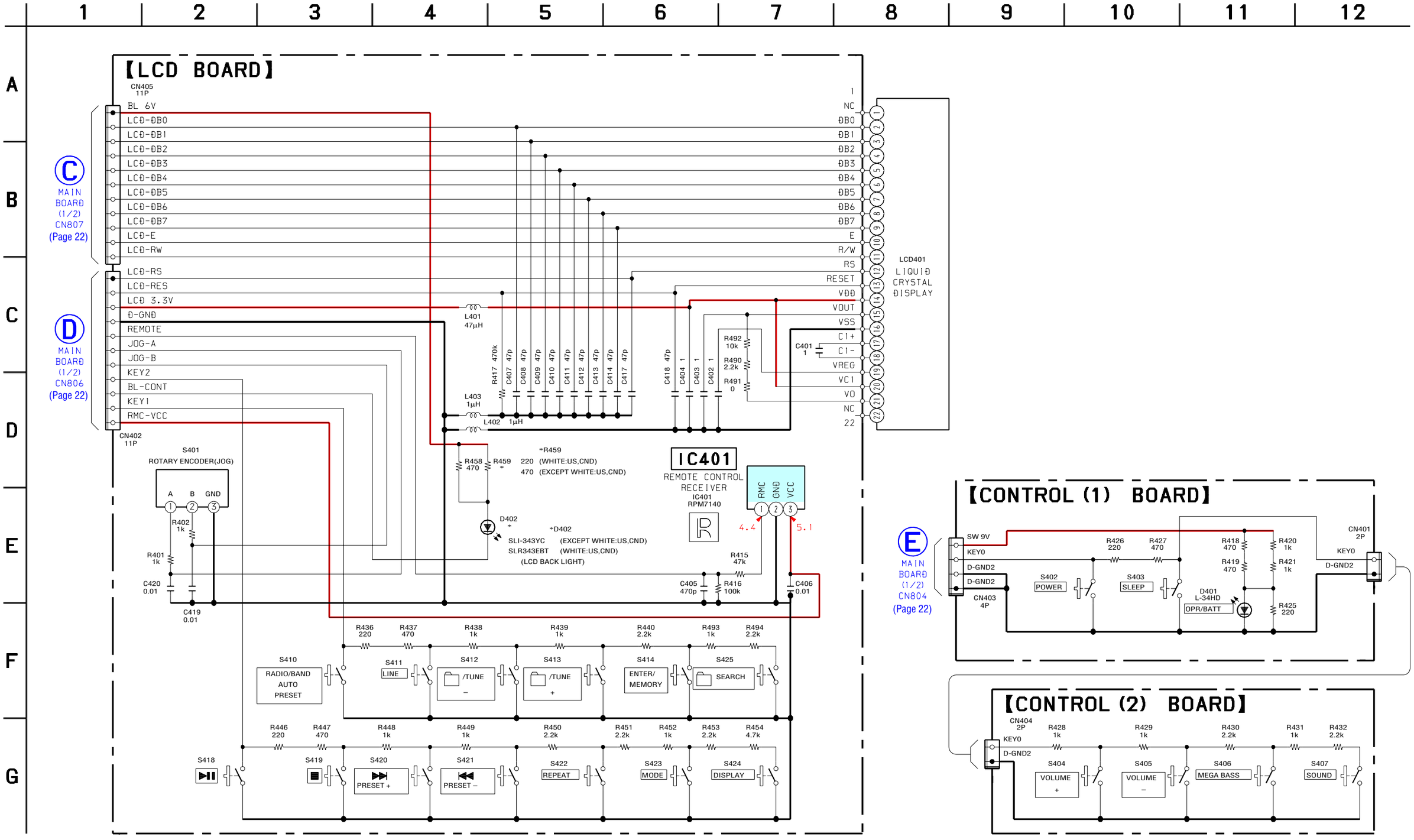
【CONTROL (1)】



【CONTROL (2)】



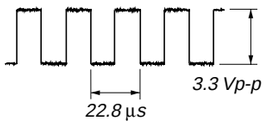
5-13. SCHEMATIC DIAGRAM – PANEL SECTION –



• Waveforms

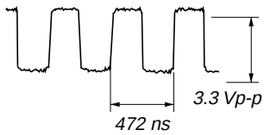
– CD Board –

① IC201 ① (LRCK) (CD PLAY mode)



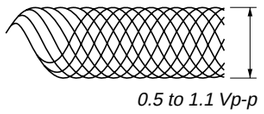
1 V/DIV, 10 µs/DIV

② IC201 ⑤ (BCK) (CD PLAY mode)



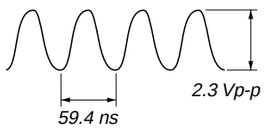
1 V/DIV, 200 ns/DIV

③ IC201 ⑦⓪ (RFACO) (CD PLAY mode)



200 mV/DIV, 500 ns/DIV

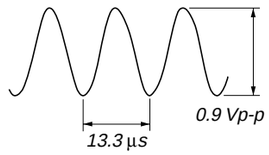
④ IC201 ⑱⑧ (XTAO) (CD PLAY mode)



1 V/DIV, 20 ns/DIV

– TUNER Board –

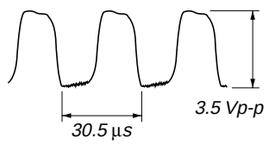
⑪ IC2 ⑳ (XOUT)



500 mV/DIV, 5 µs/DIV

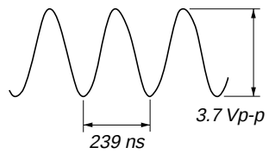
– MAIN Board –

㉑ IC801 ⑦⑨ (X1A)



1 V/DIV, 10 µs/DIV

㉒ IC801 ⑧③ (X1)

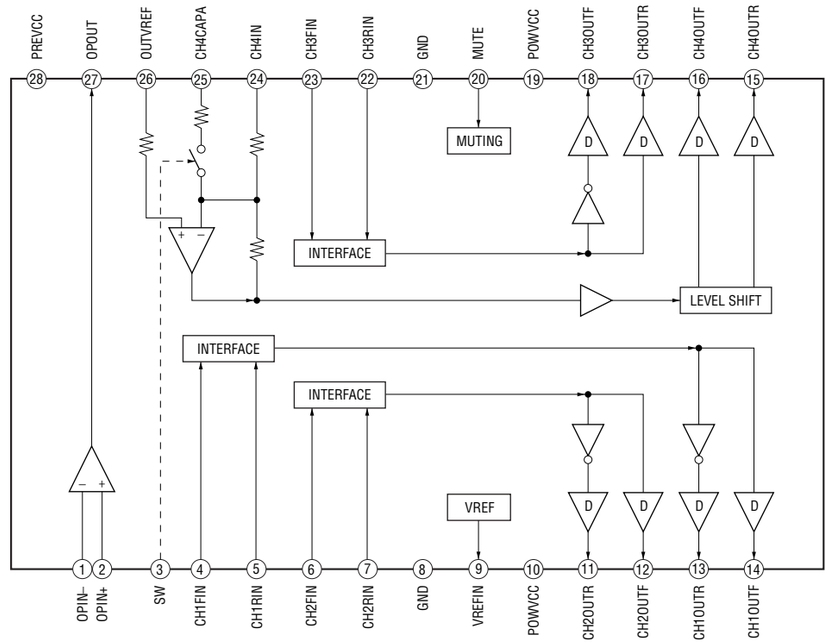


1 V/DIV, 100 ns/DIV

• IC Block Diagrams

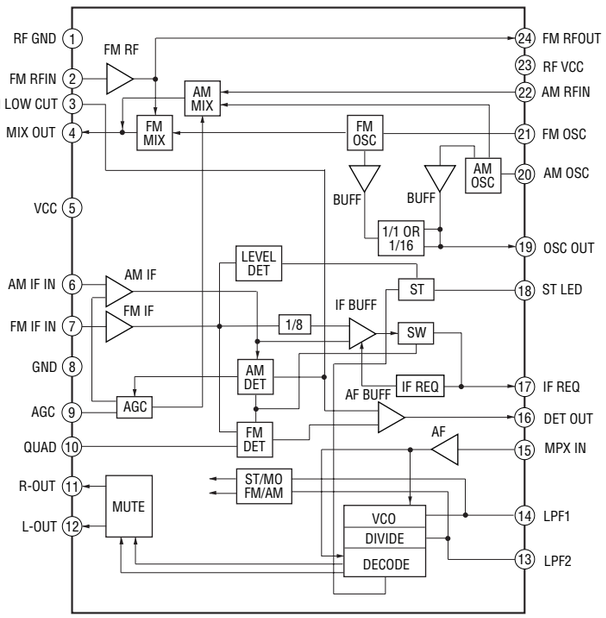
– CD Board –

IC402 BA5947FM-E2

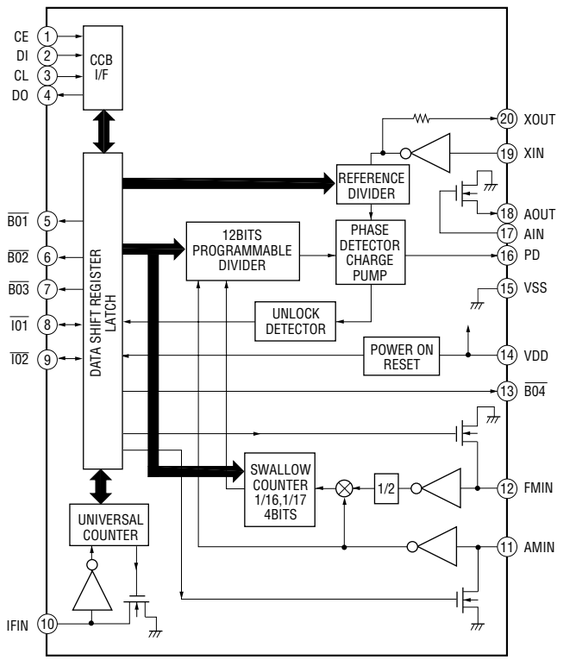


– TUNER Board –

IC1 TA2149BN

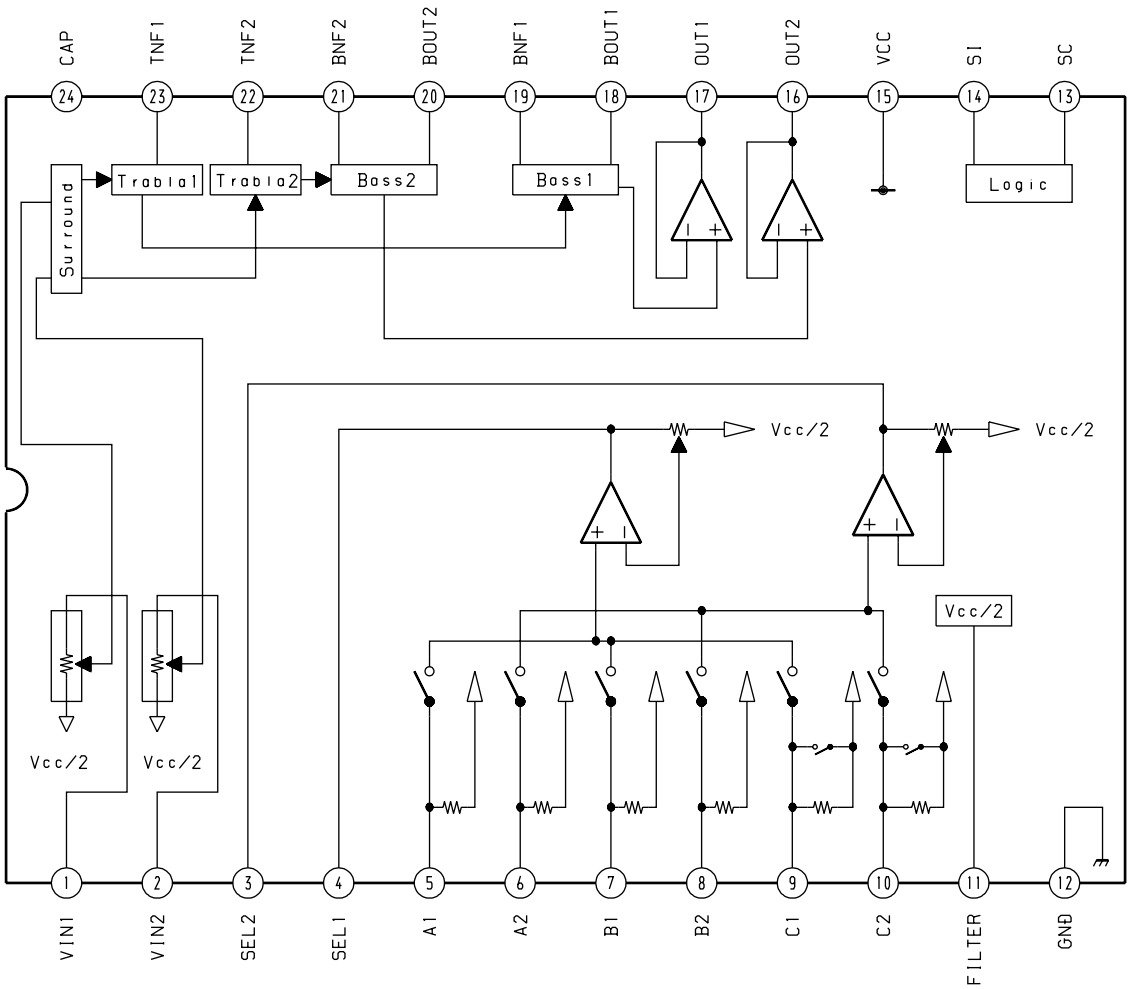


IC2 LC72137M-TLM-E

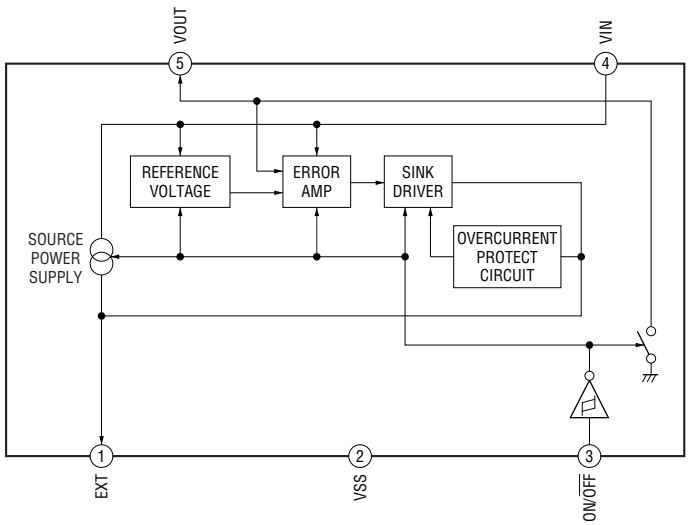


– MAIN Board –

IC301 BD3870FS-E2



IC901 S-816A33AMC-BAI-T2-G



• IC Pin Function Description

CD BOARD IC201 CXD3014-201R (CD DSP)

Pin No.	Pin Name	I/O	Description
1	LRCK	O	L/R sampling clock signal output terminal
2	LRCKI	I	L/R sampling clock signal input terminal
3	PCMD	O	Serial data output terminal
4	PCMDI	I	Serial data input terminal
5	BCK	O	Bit clock signal output terminal
6	BCKI	I	Bit clock signal input terminal
7	XTACN	I	Oscillation circuit on/off switch control signal input from the system controller "H": self-oscillation, "L": oscillation stop
8	XRST	I	Reset signal input from the system controller "L": reset
9	VSS	—	Ground terminal
10	IREQ	I	Codec data request signal input from the system controller
11	CLOK	I	CD serial data transfer clock signal input from the system controller
12	DATA2	I/O	Codec serial data input/output with the system controller
13	XLAT2	I	Codec serial data latch pulse input from the system controller
14	REQ	I	Codec chip select signal input from the system controller
15	ACK	I	Codec acknowledge signal input from the system controller
16	XLAT	I	CD serial data latch pulse input from the system controller
17	VDD	—	Power supply terminal (+2.5V)
18	SVSS	—	Ground terminal
19	SVDD	—	Power supply terminal (+2.5V)
20	SENS	O	SENS signal output to the system controller
21	WFCK	—	Not used
22	XUGF	—	Not used
23	XPCK	—	Not used
24	GFS	—	Not used
25	C2PO	—	Not used
26	SCOR	O	Subcode sync (S0+S1) detection signal output to the system controller
27	VDD	—	Power supply terminal (+2.5V)
28	COUT	—	Not used
29	SVSS	—	Ground terminal
30	SVDD	—	Power supply terminal (+2.5V)
31	MIRR	—	Not used
32	DFCT	—	Not used
33	FOK	—	Not used
34	VSS	—	Ground terminal
35	VDD	—	Power supply terminal (+2.5V)
36	VSS	—	Ground terminal
37	MIRR	—	Not used
38	MDP	O	Spindle motor servo control signal output terminal
39	SSTP	I	Disc inner position detection signal input terminal
40	IOVSS1	—	Ground terminal
41	SFDR	O	Sled servo drive signal (+) output to the coil/motor drive
42	SRDR	O	Sled servo drive signal (–) output to the coil/motor drive
43	TFDR	O	Tracking servo drive signal (+) output to the coil/motor drive
44	TRDR	O	Tracking servo drive signal (–) output to the coil/motor drive
45	FFDR	O	Focus setvo drive signal (+) output to the coil/motor drive
46	FRDR	O	Focus servo drive signal (–) output to the coil/motor drive

Pin No.	Pin Name	I/O	Description
47	IOVDD1	—	Power supply terminal (+3.3V)
48	AVDD0	—	Power supply terminal (+3.3V)
49	AVSS0	—	Ground terminal
50	E	I	E signal input from the optical pick-up block
51	F	I	F signal input from the optical pick-up block
52	TEI	I	Tracking error signal input terminal
53	TEO	O	Tracking error signal output terminal
54	FEI	I	Focus error signal input terminal
55	FEO	O	Focus error signal output terminal
56	VC	O	Middle point voltage output terminal
57	A	I	A signal iuput from the optical pick-up block
58	B	I	B signal input from the optical pick-up block
59	C	I	C signal iuput from the optical pick-up block
60	D	I	D signal input from the optical pick-up block
61	AVDD4	—	Power supply terminal (+3.3V)
62	RFDCO	O	Not used
63	PDSENS	I	Not used
64	AC_SUM	O	RFAC summing amplifier signal output terminal
65	EQ_IN	I	RF equalizer circuit input terminal
66	LD	O	Laser diode on/off control signal output to the automatic power control circuit “L”: laser off, “H”: laser on
67	PD	I	Light amount monitor input from the optical pick-up block laser diode
68	RFC	I	Equalizer cut off frequency adjustment terminal
69	AVSS4	—	Ground terminal
70	RFACO	O	EFM signal output terminal
71	RFACI	I	EFM signal input terminal
72	AVDD3	—	Power supply terminal (+3.3V)
73	BIAS	I	Asymmetry circuit constant current input terminal
74	ASYI	I	Playback EFM asymmetry comparator voltage input terminal
75	ASYO	O	Playback EFM full-swing output terminal
76	VPCO	O	Charge pump output terminal for broad-band EFM PLL
77	VCTL	I	VCO2 control voltage input terminal for broad-band EFM PLL
78	AVSS3	—	Ground terminal
79	CLTV	I	VCO1 control voltage input terminal for multiplier
80	FILO	O	Filter output terminal for master PLL
81	FILI	I	Filter input terminal for master PLL
82	PCO	O	Charge pump output terminal for master PLL
83	SVSS	—	Ground terminal
84	SVDD	—	Power supply terminal (+2.5V)
85	SRAMSTB	I	Codec standby on/off control signal input terminal Not used
86	VDD	—	Power supply terminal (+2.5V)
87	VSS	—	Ground terminal
88	TEST1	I	For test terminal Normally fixed at “L”
89	DATA	I	CD serial data input from the system controller
90	CLOK2	I	Codec serial data transfer clock signal input from the system controller
91	SVSS	—	Ground terminal
92	SVDD	—	Power supply terminal (+2.5V)
93	JTAGTCK	—	Not used
94	JTAGTDI	—	Not used

Pin No.	Pin Name	I/O	Description
95	JTAGTDO	—	Not used
96	JTAGTMS	—	Not used
97	TRST	—	Not used
98	VSS	—	Ground terminal
99	VDD	—	Power supply terminal (+2.5V)
100	IOVDD2	—	Power supply terminal (+3.3V)
101	DOUT	O	Digital audio signal output terminal Not used
102	TEST	I	For test terminal Normally fixed at “L”
103	TES1	I	For test terminal Normally fixed at “L”
104	IOVSS2	—	Ground terminal
105	PLLVDD	—	Power supply terminal (+2.5V)
106	PLLVSS	—	Ground terminal
107	XVSS	—	Ground terminal
108	XTAO	O	System clock output terminal (16.9344 MHz)
109	XTAI	I	System clock input terminal (16.9344 MHz)
110	XVDD	—	Power supply terminal (+2.5V)
111	AVDD1	—	Power supply terminal (+3.3V)
112	AOUT1	O	L-ch analog audio signal output terminal
113	VREFL	O	L-ch reference voltage output terminal
114	AVSS1	—	Ground terminal
115	AVSS2	—	Ground terminal
116	VREFR	O	R-ch reference voltage output terminal
117	AOUT2	O	R-ch analog audio signal output terminal
118	AVDD1	—	Power supply terminal (+3.3V)
119	IOVDD0	—	Power supply terminal (+3.3V)
120	IOVSS0	—	Ground terminal

MAIN BOARD IC801 MB90474PF-G-206E1 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1 to 6	NC	—	Not used
7	EEP-SCL	O	Serial clock signal output terminal to the EEPROM
8	EEP-SDA	I/O	Two-way serial data bus with the EEPROM
9	VOL-DATA	O	Serial data output to the electrical volume
10	VOL-CLK	O	Serial data transfer clock signal output to the electrical volume
11	VSS	—	Ground terminal
12 to 14	SIMUKE1 to SIMUKE3	I	For destination setting terminal
15	MEGABASS	O	MEGABASS on/off control signal output terminal
16	TESTA	I	For CD test setting terminal Fixed at “H” in this set
17	TESTB	I	For LCD test setting terminal Fixed at “H” in this set
18	SENS	I	Internal status (SENSE) signal input from the CD DSP
19	DATA	O	Serial data output to the CD DSP
20	CLOK	O	Serial data transfer clock signal output to the CD DSP
21	A-MUTE	O	Audio muting on/off control signal output terminal “H”: muting
22	P-CON	O	Power control signal output terminal “H”: active
23	VCC5	—	Power supply terminal (+3.3V)
24	TU-ON	O	Tuner power on/off control signal output terminal “H”: tuner on
25	CD3.3V-ON	O	CD power on/off control signal output terminal “H: CD on
26	BACKUP-ON	O	CD power select signal output terminal for power off state “L”: power off state
27	R-COUNT	I	PLL serial count data input terminal
28	R-DATA	O	PLL serial data output terminal
29	R-CLOCK	O	PLL serial data transfer clock signal output terminal
30	R-CE	O	PLL chip enable signal output terminal
31	R-MUTE	O	Tuner muting on/off control signal output terminal “H”: active
32	VM-CONT	O	Battery middle voltage (+4.5V) detection circuit control signal output terminal
33, 34	NC	O	Not used
35	AVCC	—	Power supply terminal (+3.3V) (for A/D converter)
36	AVRH	I	Reference voltage input terminal (+3.3V) (for A/D converter)
37	AVSS	—	Ground terminal (for A/D converter)
38	NC	O	Not used
39	KEY1	I	Key input terminal (A/D input)
40	KEY2	I	Key input terminal (A/D input)
41	KEY0	I	Key input terminal (A/D input)
42	VSS	—	Ground terminal
43	3.3V-CHECK	I	CD power voltage detection signal input terminal
44	VOL-CHECK	I	Electrical volume power voltage detection signal input terminal
45	VH	I	Battery high voltage (+9V) detection signal input terminal
46	VM	I	Battery middle voltage (+4.5V) detection signal input terminal
47, 48	P80, P81	I	Not used
49 to 51	MD0 to MD2	I	For mode setting terminal
52	WP	I	Key interruption processing start signal input terminal
53	CD DOOR	I	CD lid open/close detection switch input terminal “L”: CD lid is close
54	AC-IN	I	AC voltage detection signal input terminal “L”: AC in
55	XLAT	O	Serial data latch pulse output to the CD DSP
56	SCOR	I	Subcode sync (S0+S1) detection signal input from the CD DSP
57	IREQ	I	Codec data request signal input from the CD DSP
58	IDATA2	I	Codec serial data input from the CD DSP
59	ODATA2	O	Codec serial data output to the CD DSP

Pin No.	Pin Name	I/O	Description
60	CLOK2	O	Codec serial data transfer clock signal output to the CD DSP
61	XLAT2	O	Codec serial data latch pulse output to the CD DSP
62	REQ	O	Codec data request signal output to the CD DSP
63	ACK	I	Codec acknowledge signal input from the CD DSP
64	REMOTE	I	Remote control signal input terminal
65	NC	O	Not used
66	M-MUTE	O	Muting on/off control signal output to the coil/motor drive "H": active
67	XTACN	O	Oscillation circuit on/off switch control signal output to the CD DSP "H": self-oscillation, "L": oscillation stop
68	XRST	O	System reset signal output to the CD DSP "L": reset
69	VH-CONT	O	Battery high voltage (+9V) detection circuit control signal output terminal
70	LOAD	O	Load control signal output for battery check state
71 to 76	NC	O	Not used
77	RESET	I	System reset signal input from the reset signal generator "L": reset
78	SHIFT	O	Shift point terminal for oscillation frequency change
79	X1A	O	Sub system clock output terminal (32.768 kHz)
80	X0A	I	Sub system clock input terminal (32.768 kHz)
81	VSS	—	Ground terminal
82	X0	I	Main system clock input terminal (4.19 MHz)
83	X1	O	Main system clock output terminal (4.19 MHz)
84	VCC3	—	Power supply terminal (+3.3V)
85 to 92	LCD-DB0 to LCD-DB7	I/O	LCD parallel data input/output terminal
93	LCD-RES	O	LCD reset control signal output terminal "L": reset
94	LCD-RW	O	LCD chip data read/write signal output terminal
95	LCD-E	O	LCD data enable signal output terminal
96	LCD-RS	O	LCD resistor select signal output terminal
97	EEPROM-SEL	I	EEPROM setting terminal Fixed at "L" in this set
98, 99	JOG-A, JOG-B	I	Jog dial pulse input from the rotary encoder (JOG)
100	BL	O	LCD back light on/off control signal output terminal "H": back light on

SECTION 6
EXPLODED VIEWS

NOTE:

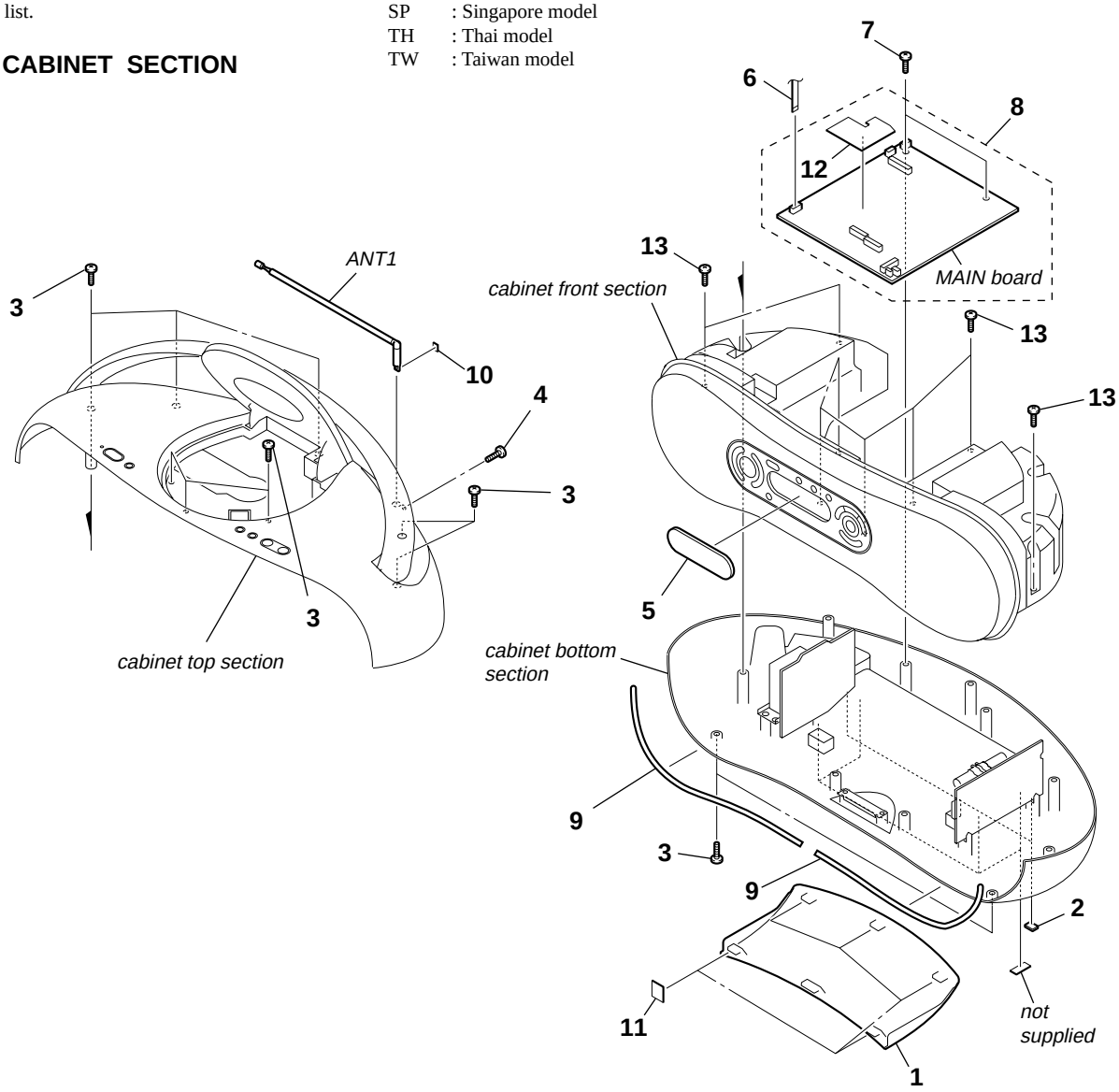
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of electrical parts list.

- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts of Color ↑ Cabinet's Color
- Abbreviation
  AUS : Australian model
  CND : Canadian model
  KR : Korean model
  MX : Mexican model
  SP : Singapore model
  TH : Thai model
  TW : Taiwan model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

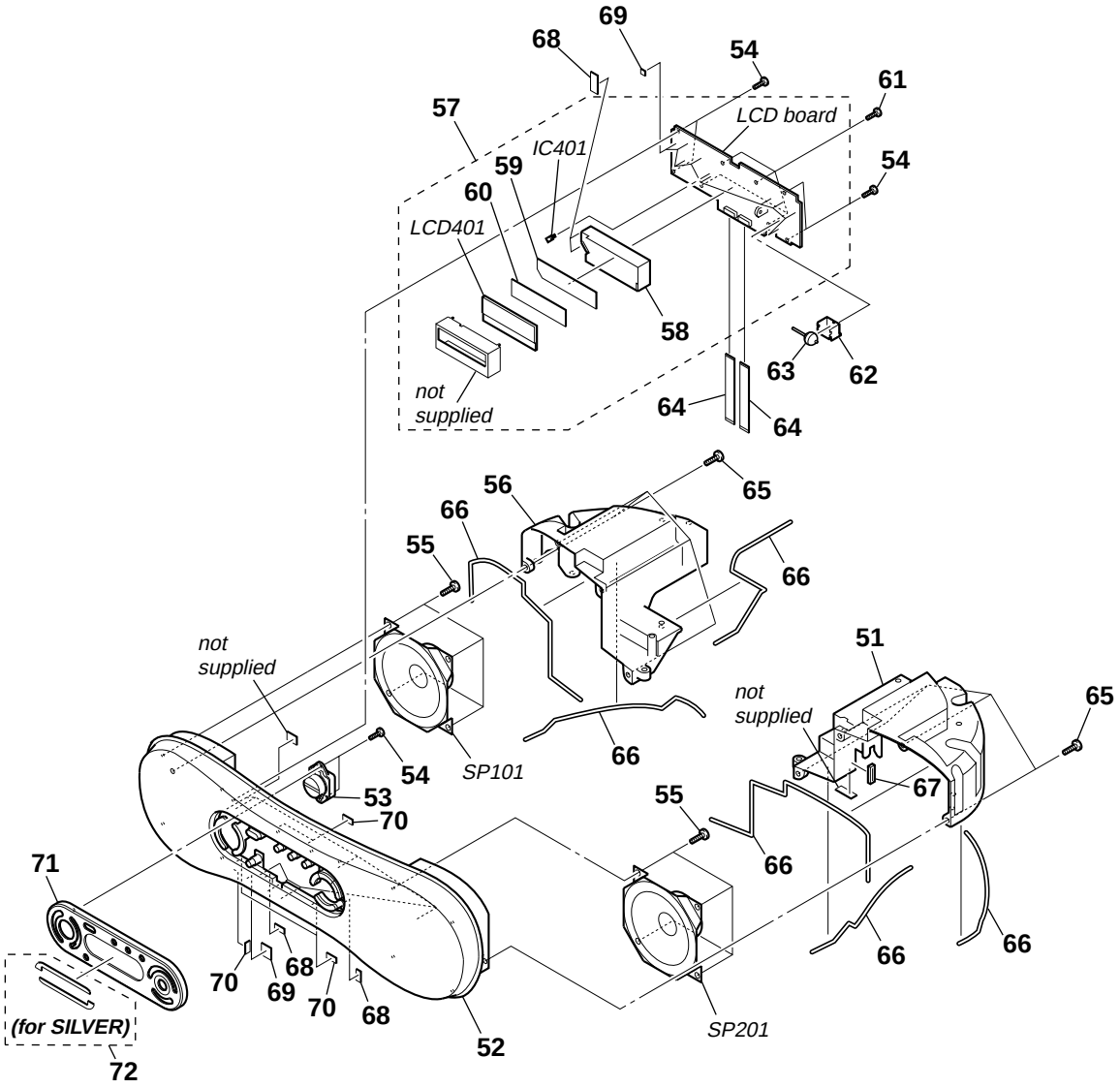
6-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	2-582-114-01	LID, BATTERY (BLACK)	
1	2-582-114-11	LID, BATTERY (WHITE)	
1	2-582-114-21	LID, BATTERY (SILVER)	
2	3-040-916-01	FOOT (FRONT), RUBBER	
3	3-254-144-01	SCREW (B3), (+) BV TAPPING (for WHITE, SILVER)	
3	3-254-144-11	SCREW (B3), (+) BV TAPPING (for BLACK)	
4	3-252-833-01	SCREW (M3), (+) P	
5	2-582-130-01	WINDOW, LCD (for BLACK, WHITE)	
5	2-582-130-21	WINDOW, LCD (for SILVER)	
6	1-830-710-11	CABLE, FLEXIBLE FLAT (4 CORE)	
7	3-252-827-01	SCREW (B2.6), (+) BV TAPPING	

Ref. No.	Part No.	Description	Remark
8	A-1105-346-A	MAIN BOARD, COMPLETE (US, CND, E, MX)	
8	A-1105-348-A	MAIN BOARD, COMPLETE (SP, TH)	
8	A-1105-349-A	MAIN BOARD, COMPLETE (TW, KR, AUS)	
9	2-024-906-01	CUSHION (REAR)	
10	3-018-963-01	CUSHION (BATTERY CASE LID)	
11	3-577-414-01	SPACER (for BLACK)	
11	3-577-414-11	SPACER (for WHITE, SILVER)	
12	2-594-013-01	PLATE (MAIN), SHIELD	
13	3-254-144-01	SCREW (B3), (+) BV TAPPING	
ANT1	1-754-241-11	ANTENNA, TELESCOPIC	

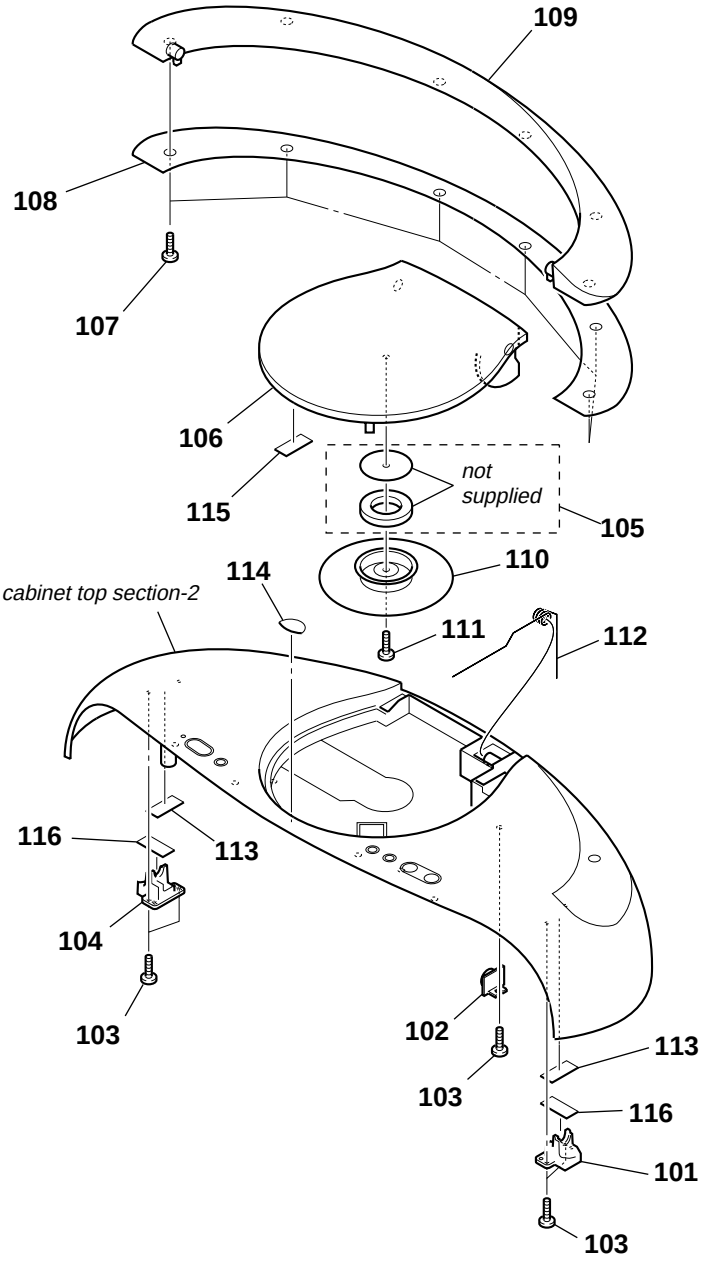
6-2. CABINET FRONT SECTION



Ref. No.	Part No.	Description	Remark
51	2-582-140-01	BOX (R), SPEAKER	
52	X-2050-833-1	CABI (FRONT) SUB ASSY (US: BLACK)	
52	X-2050-834-1	CABI (FRONT) SUB ASSY (US: WHITE)	
52	X-2050-835-1	CABI (FRONT) SUB ASSY (CND: BLACK)	
52	X-2050-836-1	CABI (FRONT) SUB ASSY (CND: WHITE)	
52	X-2050-837-1	CABI (FRONT) SUB ASSY (SILVER)	
53	2-582-115-01	BUTTON (CD) (BLACK)	
53	2-582-115-11	BUTTON (CD) (WHITE)	
53	2-582-115-21	BUTTON (CD) (SILVER)	
54	3-254-151-01	SCREW (B2.6), (+) P TAPPING	
55	3-254-143-01	SCREW (B3), (+) BV TAPPING	
56	2-582-139-01	BOX (L), SPEAKER	
57	A-1105-337-A	LCD BOARD, COMPLETE (for BLACK, SILVER)	
57	A-1124-479-A	LCD BOARD, COMPLETE (for WHITE)	
58	2-582-131-01	HOLDER (LCD)	
59	2-582-138-01	PLATE, LIGHT GUIDE	
60	2-582-152-01	ILLUMINATOR	
61	3-252-827-01	SCREW (B2.6), (+) BV TAPPING	
62	2-582-133-01	HOLDER (JOG)	
63	2-582-127-01	KNOB (JOG) (BLACK)	

Ref. No.	Part No.	Description	Remark
63	2-582-127-11	KNOB (JOG) (WHITE)	
63	2-582-127-21	KNOB (JOG) (SILVER)	
64	1-830-379-11	CABLE, FLEXIBLE FLAT (11 CORE)	
65	3-254-144-01	SCREW (B3), (+) BV TAPPING	
66	2-024-906-01	CUSHION (REAR)	
67	2-633-236-01	CUSHION (TUNER FFC)	
68	3-357-572-01	CUSHION	
69	3-885-228-01	CUSHION (B)	
70	4-942-511-01	SPACER	
71	X-2059-969-1	PANEL SUB ASSY (for BLACK)	
71	X-2059-970-1	PANEL SUB ASSY (for WHITE)	
71	2-582-132-01	PANEL (for SILVER)	
72	2-582-150-01	SHEET (LCD WINDOW), ADHESIVE	(for SILVER)
IC401	6-701-681-01	IC RPM7140-V4	
LCD401	1-479-194-11	ELEMENT UNIT, LIQUID CRYSTAL	
SP101	1-826-212-11	SPEAKER (10cm) (L-ch)	
SP201	1-826-212-11	SPEAKER (10cm) (R-ch)	

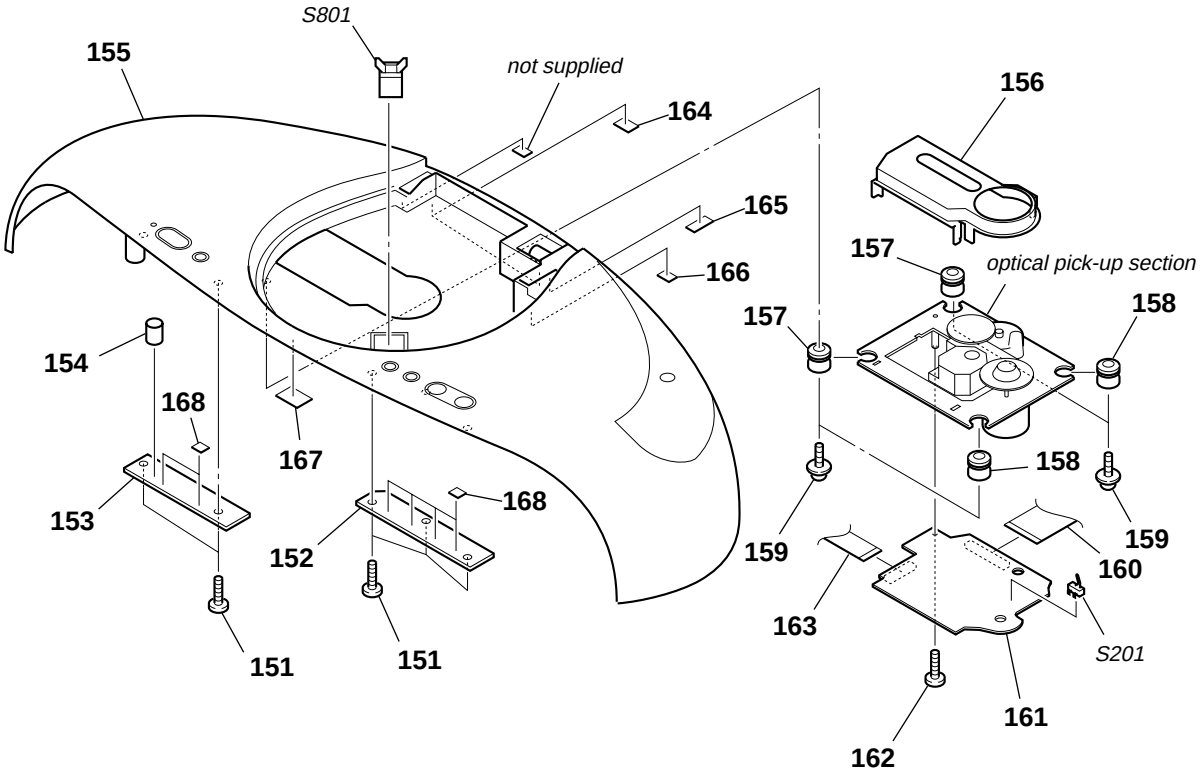
6-3. CABINET TOP SECTION-1



Ref. No.	Part No.	Description	Remark
101	2-582-129-01	HANDLE (R), HOLDER (BLACK)	
101	2-582-129-11	HANDLE (R), HOLDER (WHITE)	
101	2-582-129-21	HANDLE (R), HOLDER (SILVER)	
102	3-047-468-11	DAMPER	
103	3-252-827-01	SCREW (B2.6), (+) BV TAPPING	
104	2-582-128-01	HANDLE (L), HOLDER (BLACK)	
104	2-582-128-11	HANDLE (L), HOLDER (WHITE)	
104	2-582-128-21	HANDLE (L), HOLDER (SILVER)	
105	1-452-899-11	MAGNET	
106	2-582-110-11	LID, CD (SILVER)	
106	2-582-110-21	LID, CD (BLACK)	
106	2-582-110-31	LID, CD (WHITE)	
107	3-254-151-01	SCREW (B2.6), (+) P TAPPING	
108	2-591-496-01	COVER (HANDLE) (BLACK)	
108	2-591-496-11	COVER (HANDLE) (WHITE)	

Ref. No.	Part No.	Description	Remark
108	2-591-496-21	COVER (HANDLE) (SILVER)	
109	2-582-113-01	HANDLE (BLACK)	
109	2-582-113-11	HANDLE (WHITE)	
109	2-582-113-21	HANDLE (SILVER)	
110	3-019-395-01	PLATE, CHUCKING	
111	3-253-143-01	SCREW (B2.6), (+) P TAPPING	
112	2-582-142-01	SPRING (CD)	
113	2-592-833-01	CUSHION	
114	2-634-609-01	COVER (SCREW) (for BLACK)	
114	2-634-609-11	COVER (SCREW) (for WHITE)	
114	2-634-609-21	COVER (SCREW) (for SILVER)	
115	4-942-511-01	SPACER	
116	4-942-511-01	SPACER (BLACK)	
116	4-942-511-11	SPACER (WHITE, SILVER)	

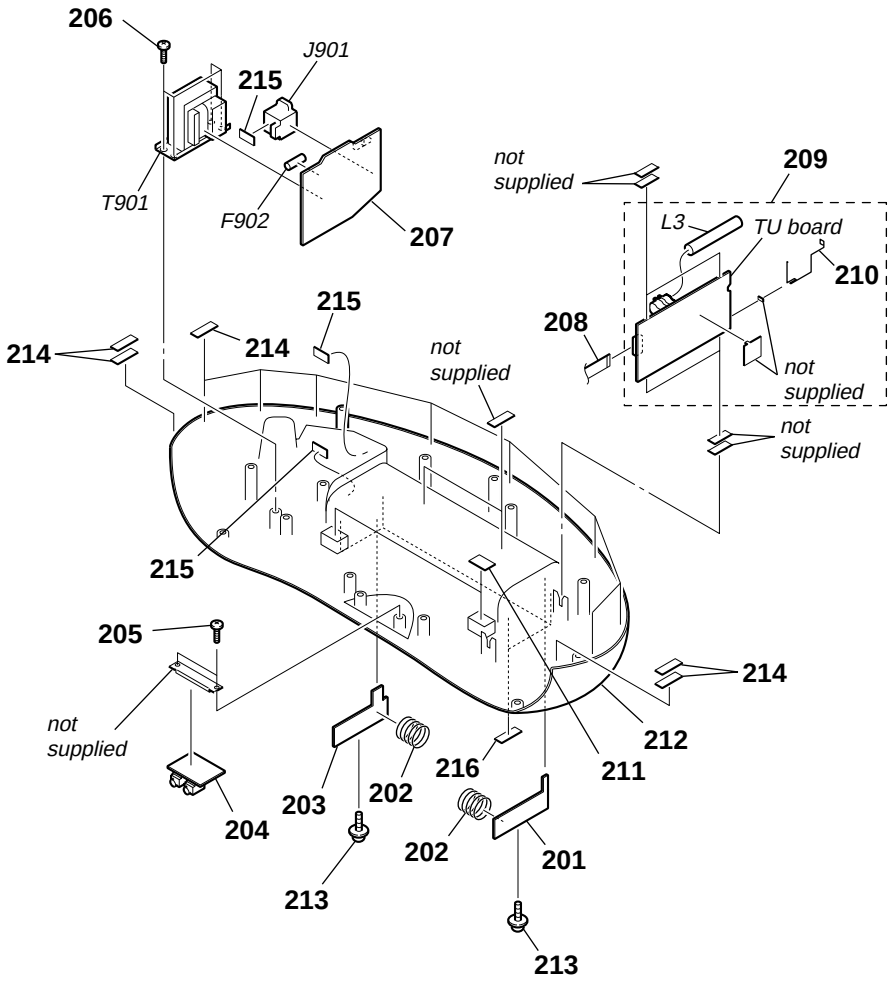
6-4. CABINET TOP SECTION-2



Ref. No.	Part No.	Description	Remark
151	3-252-827-01	SCREW (B2.6), (+) BV TAPP	
152	A-1105-376-A	CONTROL (2) BOARD, COMPLETE	
153	A-1105-375-A	CONTROL (1) BOARD, COMPLETE	
154	2-582-134-01	HOLDER (LED)	
155	X-2050-820-1	CABINET TOP SUB ASSY (US: WHITE)	
155	X-2050-821-1	CABINET TOP SUB ASSY (CND: BLACK)	
155	X-2050-822-1	CABINET TOP SUB ASSY (CND: WHITE)	
155	X-2050-823-1	CABINET TOP SUB ASSY (SILVER)	
155	X-2050-819-1	CABINET TOP SUB ASSY (US: BLACK)	
156	3-923-736-01	COVER, CD	
157	3-931-379-21	RUBBER, VIBRATION PROOF	
158	3-931-379-31	RUBBER, VIBRATION PROOF	
159	3-252-828-01	SCREW (B2.6), (+) PWH TAPPING	

Ref. No.	Part No.	Description	Remark
160	1-828-377-11	WIRE (FLAT TYPE) (23 CORE)	
161	A-1107-453-A	CD BOARD, COMPLETE	
162	3-245-709-51	SCREW	
163	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
164	3-015-345-21	CUSHION	
165	3-255-320-01	CUSHION, CR	
166	3-018-963-01	CUSHION (BATTERY CASE LID)	
167	3-357-572-01	CUSHION	
168	3-885-228-01	CUSHION (B)	
S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	
S801	1-692-960-11	SWITCH, PUSH (1 KEY)	(CD LID OPEN/CLOSE DETECT)

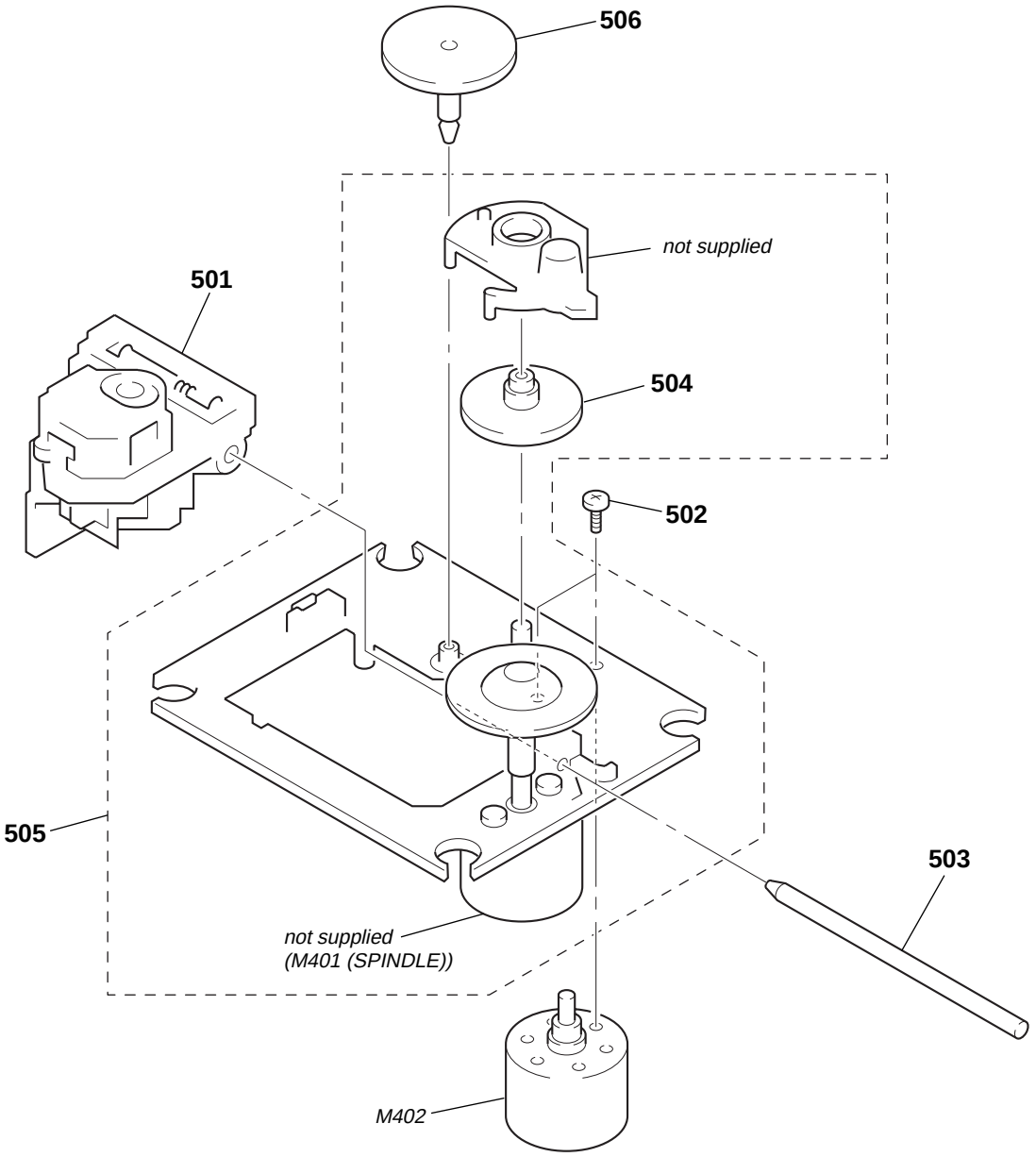
6-5. CABINET BOTTOM SECTION



Ref. No.	Part No.	Description	Remark
* 201	1-866-326-11	BATTERY2 BOARD	
202	3-240-561-02	TERMINAL (–), BATTERY	
* 203	1-866-325-11	BATTERY1 BOARD	
204	A-1105-328-A	H/P BOARD, COMPLETE	
205	3-252-827-01	SCREW (B2.6), (+) BV TAPPING	
206	3-254-143-01	SCREW (B3), (+) BV TAPPING	
207	A-1105-360-A	POWER BOARD, COMPLETE	
208	1-962-797-11	CABLE, FLEXIBLE FLAT (11 CORE)	
209	A-1105-354-A	TUNER BOARD, COMPLETE (US, CND, E, MX)	
209	A-1105-355-A	TUNER BOARD, COMPLETE (SP, TW, KR, TH, AUS)	
210	2-582-141-01	TERMINAL, ANTENNA	
211	2-582-153-01	SHEET, BATTERY	
212	2-582-109-01	CABINET (BOTTOM) (US: BLACK)	
212	2-582-109-11	CABINET (BOTTOM) (US: WHITE)	
212	2-582-109-21	CABINET (BOTTOM) (CND: BLACK)	
212	2-582-109-31	CABINET (BOTTOM) (CND: WHITE)	

Ref. No.	Part No.	Description	Remark
212	2-582-109-41	CABINET (BOTTOM) (SILVER)	
213	3-252-830-01	SCREW (B3), (+) PWH TAPPING	
214	3-018-963-01	CUSHION (BATTERY CASE LID)	
215	3-357-572-01	CUSHION	
216	4-942-511-01	SPACER (for BLACK)	
216	4-942-511-11	SPACER (for WHITE, SILVER)	
⚠F902	1-533-450-12	FUSE, GLASS TUBE (DIA. 5) (2.5A/125V) (US, CND, E, MX, TW)	
⚠F902	1-533-468-12	FUSE, GLASS TUBE (DIA. 5) (2A/250V) (SP, KR, TH, AUS)	
⚠J901	1-526-818-11	INLET, AC (E, MX)	
⚠J901	1-526-838-11	INLET, AC 2P (SP, TW, KR, TH, AUS)	
⚠J901	1-540-009-11	INLET, AC (US, CND)	
L3	1-754-117-12	ANTENNA, FERRITE-ROD (MW)	
⚠T901	1-435-917-21	TRANSFORMER, POWER (US, CND, E, MX, TW)	
⚠T901	1-435-918-21	TRANSFORMER, POWER (SP, KR, TH, AUS)	

6-6. OPTICAL PICK-UP SECTION (KSM-213CDP)



Ref. No.	Part No.	Description	Remark
⚠501	8-848-483-12	OPTICAL PICK-UP (KSS-213C/C2RP1)	
502	2-174-500-01	SCREW (2X3)	
503	2-626-908-01	SHAFT, SLED	
504	2-627-003-01	GEAR (B) (RP)	
505	X-2162-709-2	CHASSIS ASSY (CDP), MOTOR (including M401 (SPINDLE))	
506	2-626-907-11	GEAR (A)	
M402	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. ., uPA. . : µPA. .,
  uPB. . : µPB. ., uPC. . : µPC. .,
  uPD. . : µPD. .
- Abbreviation
  AUS : Australian model.
  CND : Canadian model.
  KR : Korean model.
  MX : Mexican model.
  SP : Singapore model.
  TH : Thai model.
  TW : Taiwan model.

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
*	1-866-325-11	BATTERY1 BOARD			
		**********			
	3-240-561-02	TERMINAL (–), BATTERY			
**********					
*	1-866-326-11	BATTERY2 BOARD			
		**********			
	3-240-561-02	TERMINAL (–), BATTERY			
		< CONNECTOR >			
CN904	1-815-550-11	PIN, CONNECTOR (PWB) 2P			
**********					
	A-1107-453-A	CD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C102	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C103	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C104	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C105	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C107	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C108	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C109	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C110	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C111	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C112	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C113	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C132	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C133	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C201	1-128-995-21	ELECT CHIP	100uF	20%	10V
C202	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C203	1-128-995-21	ELECT CHIP	100uF	20%	10V
C204	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C205	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C206	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C207	1-128-995-21	ELECT CHIP	100uF	20%	10V
C208	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C210	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C213	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C214	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C215	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C217	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C218	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C219	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C220	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C221	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C222	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C223	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C224	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C226	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C227	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C230	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C232	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C251	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C252	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C253	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C254	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C256	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C257	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C258	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C259	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C260	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C261	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C264	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C265	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C267	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C268	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C269	1-126-208-21	ELECT CHIP	47uF	20%	4V
C270	1-126-208-21	ELECT CHIP	47uF	20%	4V
C271	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C272	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C273	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C275	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C291	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C292	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C301	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C302	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C303	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C321	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C322	1-115-156-11	CERAMIC CHIP	1uF		10V
C323	1-128-995-21	ELECT CHIP	100uF	20%	10V
C401	1-128-396-11	ELECT CHIP	470uF	20%	10V
C404	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C405	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C406	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C424	1-164-360-11	CERAMIC CHIP	0.1uF		16V

CD | CONTROL (1) | CONTROL (2)

Ref. No.	Part No.	Description			Remark
C451	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
		< CONNECTOR >			
CN102	1-770-706-11	CONNECTOR, FFC/FPC 23P			
CN301	1-770-425-11	CONNECTOR, FFC/FPC 16P			
		< IC >			
IC201	8-753-239-32	IC CXD3014-201R			
IC202	6-708-165-01	IC TK73325WTL-G			
IC402	6-705-808-01	IC BA5947FM-E2			
		< TRANSISTOR >			
Q321	6-551-120-01	TRANSISTOR	2SA2119K		
		< RESISTOR >			
R101	1-216-809-11	METAL CHIP	100	5%	1/10W
R102	1-216-809-11	METAL CHIP	100	5%	1/10W
R103	1-216-809-11	METAL CHIP	100	5%	1/10W
R104	1-216-809-11	METAL CHIP	100	5%	1/10W
R105	1-216-809-11	METAL CHIP	100	5%	1/10W
R107	1-216-809-11	METAL CHIP	100	5%	1/10W
R108	1-216-809-11	METAL CHIP	100	5%	1/10W
R109	1-216-809-11	METAL CHIP	100	5%	1/10W
R110	1-216-809-11	METAL CHIP	100	5%	1/10W
R111	1-216-809-11	METAL CHIP	100	5%	1/10W
R112	1-216-809-11	METAL CHIP	100	5%	1/10W
R113	1-216-809-11	METAL CHIP	100	5%	1/10W
R115	1-216-864-11	SHORT CHIP	0		
R201	1-216-295-91	SHORT CHIP	0		
R202	1-216-295-91	SHORT CHIP	0		
R203	1-216-295-91	SHORT CHIP	0		
R207	1-216-295-91	SHORT CHIP	0		
R249	1-216-841-11	METAL CHIP	47K	5%	1/10W
R250	1-216-857-11	METAL CHIP	1M	5%	1/10W
R252	1-216-833-11	METAL CHIP	10K	5%	1/10W
R253	1-216-821-11	METAL CHIP	1K	5%	1/10W
R254	1-216-833-11	METAL CHIP	10K	5%	1/10W
R255	1-216-821-11	METAL CHIP	1K	5%	1/10W
R256	1-216-837-11	METAL CHIP	22K	5%	1/10W
R257	1-216-853-11	METAL CHIP	470K	5%	1/10W
R258	1-216-849-11	METAL CHIP	220K	5%	1/10W
R259	1-216-833-11	METAL CHIP	10K	5%	1/10W
R260	1-216-864-11	SHORT CHIP	0		
R265	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R266	1-216-821-11	METAL CHIP	1K	5%	1/10W
R267	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R268	1-216-833-11	METAL CHIP	10K	5%	1/10W
R270	1-216-817-11	METAL CHIP	470	5%	1/10W
R271	1-216-857-11	METAL CHIP	1M	5%	1/10W
R275	1-216-809-11	METAL CHIP	100	5%	1/10W
R276	1-216-841-11	METAL CHIP	47K	5%	1/10W
R277	1-216-809-11	METAL CHIP	100	5%	1/10W
R278	1-216-809-11	METAL CHIP	100	5%	1/10W
R280	1-216-864-11	SHORT CHIP	0		
R291	1-216-809-11	METAL CHIP	100	5%	1/10W
R292	1-216-809-11	METAL CHIP	100	5%	1/10W
R321	1-216-789-11	METAL CHIP	2.2	5%	1/10W

Ref. No.	Part No.	Description			Remark
R322	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R323	1-216-864-11	SHORT CHIP	0		
R324	1-216-845-11	METAL CHIP	100K	5%	1/10W
R325	1-216-864-11	SHORT CHIP	0		
R326	1-216-864-11	SHORT CHIP	0		
R401	1-216-295-91	SHORT CHIP	0		
R421	1-216-864-11	SHORT CHIP	0		
R423	1-216-833-11	METAL CHIP	10K	5%	1/10W
R451	1-216-837-11	METAL CHIP	22K	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< VIBRATOR >			
X202	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			
**********					
	A-1105-375-A	CONTROL (1) BOARD, COMPLETE			
		**********			
		< CONNECTOR >			
CN401	1-815-550-11	PIN, CONNECTOR (PWB) 2P			
CN403	1-784-726-11	CONNECTOR, FFC 4P			
		< LED >			
D401	8-719-059-97	LED L-34HD (OPR/BATT)			
		< RESISTOR >			
R418	1-216-817-11	METAL CHIP	470	5%	1/10W
R419	1-216-817-11	METAL CHIP	470	5%	1/10W
R420	1-216-821-11	METAL CHIP	1K	5%	1/10W
R421	1-216-821-11	METAL CHIP	1K	5%	1/10W
R425	1-216-813-11	METAL CHIP	220	5%	1/10W
R426	1-216-813-11	METAL CHIP	220	5%	1/10W
R427	1-216-817-11	METAL CHIP	470	5%	1/10W
		< SWITCH >			
S402	1-786-050-21	SWITCH, KEY BOARD (POWER)			
S403	1-786-050-21	SWITCH, KEY BOARD (SLEEP)			
**********					
	A-1105-376-A	CONTROL (2) BOARD, COMPLETE			
		**********			
		< RESISTOR >			
R428	1-216-821-11	METAL CHIP	1K	5%	1/10W
R429	1-216-821-11	METAL CHIP	1K	5%	1/10W
R430	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R431	1-216-821-11	METAL CHIP	1K	5%	1/10W
R432	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
		< SWITCH >			
S404	1-786-050-21	SWITCH, KEY BOARD (VOLUME +)			
S405	1-786-050-21	SWITCH, KEY BOARD (VOLUME –)			
S406	1-786-050-21	SWITCH, KEY BOARD (MEGA BASS)			
S407	1-786-050-21	SWITCH, KEY BOARD (SOUND)			
**********					

Ref. No.	Part No.	Description			Remark
	A-1105-328-A	H/P BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C119	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C219	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
* CN323	1-815-552-11	PIN, CONNECTOR (PWB) 4P			
		< FERRITE BEAD >			
FB101	1-469-701-21	FERRITE, EMI (SMD) (1608)			
FB201	1-469-701-21	FERRITE, EMI (SMD) (1608)			
FB301	1-469-701-21	FERRITE, EMI (SMD) (1608)			
		< JACK >			
J301	1-815-325-11	JACK (🎧)			
J322	1-566-891-11	JACK (LINE IN)			
		< COIL >			
L101	1-410-517-11	INDUCTOR	47uH		
L201	1-410-517-11	INDUCTOR	47uH		
L301	1-414-142-61	INDUCTOR	1uH		
		< RESISTOR >			
R126	1-216-809-11	METAL CHIP	100	5%	1/10W
R226	1-216-809-11	METAL CHIP	100	5%	1/10W
**********					
	A-1105-337-A	LCD BOARD, COMPLETE (for BLACK, SILVER)			
	A-1124-479-A	LCD BOARD, COMPLETE (for WHITE)			
		**********			
	2-582-131-01	HOLDER, LCD			
	2-582-138-01	PLATE, LIGHT GUIDE			
	2-582-152-01	ILLUMINATOR			
		< CAPACITOR >			
C401	1-115-156-11	CERAMIC CHIP	1uF		10V
C402	1-115-156-11	CERAMIC CHIP	1uF		10V
C403	1-115-156-11	CERAMIC CHIP	1uF		10V
C404	1-115-156-11	CERAMIC CHIP	1uF		10V
C405	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C406	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C407	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C408	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C409	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C410	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C411	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C412	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C413	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C414	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C417	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C418	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C419	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C420	1-162-974-11	CERAMIC CHIP	0.01uF		50V

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
CN402	1-770-519-31	CONNECTOR, FFC/FPC 11P			
CN405	1-770-519-31	CONNECTOR, FFC/FPC 11P			
		< LED >			
D402	6-500-076-01	LED SLI-343YC (LCD BACK LIGHT) (EXCEPT US (WHITE), CND (WHITE))			
D402	6-500-863-01	LED SLR343EBT (LCD BACK LIGHT) (US (WHITE), CND (WHITE))			
		< IC >			
IC401	6-701-681-01	IC RPM7140-V4			
		< COIL >			
L401	1-410-517-11	INDUCTOR	47uH		
L402	1-414-142-61	INDUCTOR	1uH		
L403	1-414-142-61	INDUCTOR	1uH		
		< LIQUID CRYSTAL DISPLAY >			
LCD401	1-479-194-11	ELEMENT UNIT, LIQUID CRYSTAL I			
		< RESISTOR >			
R401	1-216-821-11	METAL CHIP	1K	5%	1/10W
R402	1-216-821-11	METAL CHIP	1K	5%	1/10W
R415	1-216-841-11	METAL CHIP	47K	5%	1/10W
R416	1-216-845-11	METAL CHIP	100K	5%	1/10W
R417	1-216-853-11	METAL CHIP	470K	5%	1/10W
R436	1-216-813-11	METAL CHIP	220	5%	1/10W
R437	1-216-817-11	METAL CHIP	470	5%	1/10W
R438	1-216-821-11	METAL CHIP	1K	5%	1/10W
R439	1-216-821-11	METAL CHIP	1K	5%	1/10W
R440	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R446	1-216-813-11	METAL CHIP	220	5%	1/10W
R447	1-216-817-11	METAL CHIP	470	5%	1/10W
R448	1-216-821-11	METAL CHIP	1K	5%	1/10W
R449	1-216-821-11	METAL CHIP	1K	5%	1/10W
R450	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R451	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R452	1-216-821-11	METAL CHIP	1K	5%	1/10W
R453	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R454	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R458	1-216-817-11	METAL CHIP	470	5%	1/10W
R459	1-216-813-11	METAL CHIP	220	5%	1/10W (US (WHITE), CND (WHITE))
R459	1-216-817-11	METAL CHIP	470	5%	1/10W (EXCEPT US (WHITE), CND (WHITE))
R490	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R491	1-216-864-11	SHORT CHIP	0		
R492	1-216-833-11	METAL CHIP	10K	5%	1/10W
R493	1-216-821-11	METAL CHIP	1K	5%	1/10W
R494	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
		< SWITCH >			
S401	1-478-528-11	ENCODER (ROTARY) (JOG)			
S410	1-786-050-21	SWITCH, KEY BOARD (LINE)			
S411	1-786-050-21	SWITCH, KEY BOARD (RADIO/BAND, AUTO PRESET)			

Ref. No.	Part No.	Description	Remark
S412	1-786-050-21	SWITCH, KEY BOARD (FOLDER/TUNE –)	
S413	1-786-050-21	SWITCH, KEY BOARD (FOLDER/TUNE +)	
S414	1-786-050-21	SWITCH, KEY BOARD (ENTER/MEMORY)	
S418	1-786-050-21	SWITCH, KEY BOARD (▶II)	
S419	1-786-050-21	SWITCH, KEY BOARD (■)	
S420	1-786-050-21	SWITCH, KEY BOARD (▶▶I PRESET +)	
S421	1-786-050-21	SWITCH, KEY BOARD (I◀◀ PRESET –)	
S422	1-786-050-21	SWITCH, KEY BOARD (REPEAT)	
S423	1-786-050-21	SWITCH, KEY BOARD (MODE)	
S424	1-786-050-21	SWITCH, KEY BOARD (DISPLAY)	
S425	1-786-050-21	SWITCH, KEY BOARD (FOLDER SEARCH)	
**********			
	A-1105-346-A	MAIN BOARD, COMPLETE (US, CND, E, MX)	
	A-1105-348-A	MAIN BOARD, COMPLETE (SP, TH)	
	A-1105-349-A	MAIN BOARD, COMPLETE (TW, KR, AUS)	
	**********		
	2-594-013-01	PLATE (MAIN), SHIELD	
	3-252-827-01	SCREW (B2.6), (+) BV TAPPING	
		< CAPACITOR >	

C101	1-126-961-11	ELECT	2.2uF	20%	50V
C102	1-126-961-11	ELECT	2.2uF	20%	50V
C103	1-126-959-11	ELECT	0.47uF	20%	50V
C104	1-126-963-11	ELECT	4.7uF	20%	50V
C105	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C106	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C107	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C108	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C109	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C110	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C111	1-126-963-11	ELECT	4.7uF	20%	50V
C112	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C113	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C114	1-126-960-11	ELECT	1uF	20%	50V
C116	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C117	1-126-960-11	ELECT	1uF	20%	50V
C118	1-126-960-11	ELECT	1uF	20%	50V
C120	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C122	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C123	1-126-785-11	ELECT	47uF	20%	10V
C124	1-104-658-91	ELECT	100uF	20%	10V
C125	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C126	1-126-926-11	ELECT	1000uF	20%	10V
C127	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C201	1-126-961-11	ELECT	2.2uF	20%	50V
C202	1-126-961-11	ELECT	2.2uF	20%	50V
C203	1-126-959-11	ELECT	0.47uF	20%	50V
C204	1-126-963-11	ELECT	4.7uF	20%	50V
C205	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C206	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C207	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C208	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C209	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C210	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C211	1-126-963-11	ELECT	4.7uF	20%	50V
C212	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C213	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V

Ref. No.	Part No.	Description			Remark
C214	1-126-960-11	ELECT	1uF	20%	50V
C216	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C217	1-126-960-11	ELECT	1uF	20%	50V
C218	1-126-960-11	ELECT	1uF	20%	50V
C220	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C222	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C223	1-126-785-11	ELECT	47uF	20%	10V
C224	1-104-658-91	ELECT	100uF	20%	10V
C225	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C226	1-126-926-11	ELECT	1000uF	20%	10V
C227	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C301	1-104-658-91	ELECT	100uF	20%	10V
C302	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C303	1-126-959-11	ELECT	0.47uF	20%	50V
C304	1-124-589-11	ELECT	47uF	20%	16V
C305	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C306	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C321	1-104-662-91	ELECT	22uF	20%	25V
C322	1-126-947-11	ELECT	47uF	20%	35V
C324	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C325	1-126-157-11	ELECT	10uF	20%	16V
C326	1-126-934-11	ELECT	220uF	20%	16V
C421	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C422	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C423	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C424	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C425	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C426	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C427	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C428	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C429	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C430	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C431	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C432	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C433	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C434	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C801	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C802	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C803	1-126-513-11	ELECT	47uF	20%	6.3V
C805	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C806	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C807	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C808	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C809	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C810	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C811	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C812	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C813	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C814	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C815	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C816	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C817	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C818	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C819	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C820	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C821	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C822	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C823	1-162-919-11	CERAMIC CHIP	22PF	5%	50V

Ref. No.	Part No.	Description			Remark
C824	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C825	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C826	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C827	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C828	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C829	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C830	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C831	1-115-156-11	CERAMIC CHIP	1uF		10V
C832	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C833	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C837	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C838	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C839	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C840	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C841	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C842	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C845	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C848	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C849	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C850	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C851	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C852	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C853	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C854	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C855	1-115-156-11	CERAMIC CHIP	1uF		10V
C856	1-115-156-11	CERAMIC CHIP	1uF		10V
C859	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C860	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C861	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C862	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C867	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C868	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C869	1-115-156-11	CERAMIC CHIP	1uF		10V
C870	1-126-964-11	ELECT	10uF	20%	50V
C871	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C872	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C873	1-126-926-11	ELECT	1000uF	20%	10V
C874	1-126-923-91	ELECT	220uF	20%	10V
C875	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C907	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C950	1-126-937-11	ELECT	4700uF	20%	16V
C951	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C952	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C953	1-126-923-91	ELECT	220uF	20%	10V
C954	1-104-658-91	ELECT	100uF	20%	10V
C955	1-126-923-91	ELECT	220uF	20%	10V
C956	1-104-658-91	ELECT	100uF	20%	10V
C957	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C958	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C959	1-126-934-11	ELECT	220uF	20%	16V
C960	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C961	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C963	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
CN301	1-815-445-11	PIN, CONNECTOR (PWB) 4P			
CN302	1-815-444-11	PIN, CONNECTOR (PWB) 3P			

Ref. No.	Part No.	Description	Remark
CN801	1-779-291-11	CONNECTOR, FFC (LIF (NON-ZIF)) 23P	
CN802	1-568-830-11	CONNECTOR 11P	
CN804	1-784-765-11	CONNECTOR, FFC 4P	
CN806	1-568-830-11	CONNECTOR 11P	
CN807	1-568-830-11	CONNECTOR 11P	
CN901	1-815-445-21	PIN, CONNECTOR (PWB) 4P	
		< DIODE >	
D301	8-719-082-07	DIODE KDS121-RTK	
D801	8-719-082-07	DIODE KDS121-RTK	
D802	8-719-069-54	DIODE UDZSTE-175.1B	
D905	8-719-978-33	DIODE DTZ-TT11-6.8B	
D906	8-719-988-61	DIODE 1SS355TE-17	
D907	8-719-988-61	DIODE 1SS355TE-17	
D908	8-719-988-61	DIODE 1SS355TE-17	
D951	8-719-083-93	DIODE KDS120-RTK	
D953	8-719-978-33	DIODE DTZ-TT11-6.8B	
		< FERRITE BEAD >	
FB801	1-469-701-21	FERRITE, EMI (SMD) (1608)	
FB802	1-469-701-21	FERRITE, EMI (SMD) (1608)	
FB803	1-500-445-21	FERRITE, EMI (SMD) (2012)	
FB804	1-500-445-21	FERRITE, EMI (SMD) (2012)	
		< IC >	
IC301	6-701-824-11	IC BD3870FS-E2	
IC304	8-759-426-51	IC BA5417	
IC801	6-805-110-01	IC MB90474PF-G-206E1	
IC802	6-706-338-01	IC XC6202P332FR	
IC803	6-703-224-01	IC S-80828CNNB-B8NT2G	
IC804	6-704-004-01	IC BR24L16F-WE2	
IC901	8-759-679-43	IC S-816A33AMC-BAI-T2-G	
		< JUMPER RESISTOR >	
JC801	1-216-864-11	SHORT CHIP 0	
JC802	1-216-864-11	SHORT CHIP 0	
JC803	1-216-864-11	SHORT CHIP 0	
JC804	1-216-864-11	SHORT CHIP 0	
JC805	1-216-864-11	SHORT CHIP 0	
JC806	1-216-864-11	SHORT CHIP 0	
JC807	1-216-864-11	SHORT CHIP 0	
JC808	1-216-864-11	SHORT CHIP 0	
		< COIL >	
L801	1-410-509-11	INDUCTOR 10uH	
L802	1-414-137-31	INDUCTOR 0.22uH	
L803	1-414-142-61	INDUCTOR 1uH	
L804	1-410-517-11	INDUCTOR 47uH	
L806	1-414-142-61	INDUCTOR 1uH	
L807	1-410-517-11	INDUCTOR 47uH	
		< TRANSISTOR >	
Q101	8-729-905-36	TRANSISTOR 2SC4081-S	
Q121	6-550-364-01	TRANSISTOR 2SD2652T106	
Q201	8-729-905-36	TRANSISTOR 2SC4081-S	
Q221	6-550-364-01	TRANSISTOR 2SD2652T106	
Q801	8-729-905-34	TRANSISTOR 2SC4081-Q	

Ref. No.	Part No.	Description			Remark
Q802	8-729-905-34	TRANSISTOR	2SC4081-Q		
Q803	8-729-905-34	TRANSISTOR	2SC4081-Q		
Q804	8-729-028-76	TRANSISTOR	DTA114YUA-T106		
Q805	8-729-028-99	TRANSISTOR	DTC114YUA-T106		
Q806	8-729-028-99	TRANSISTOR	DTC114YUA-T106		
Q807	8-729-026-53	TRANSISTOR	2SA1576A-T106-QR		
Q808	8-729-028-99	TRANSISTOR	DTC114YUA-T106		
Q809	8-729-028-99	TRANSISTOR	DTC114YUA-T106		
Q810	8-729-028-76	TRANSISTOR	DTA114YUA-T106		
Q811	8-729-029-00	TRANSISTOR	DTC115EUA-T106		
Q812	8-729-028-77	TRANSISTOR	DTA115EUA-T106		
Q813	8-729-026-53	TRANSISTOR	2SA1576A-T106-QR		
Q821	8-729-028-77	TRANSISTOR	DTA115EUA-T106		
Q822	8-729-029-00	TRANSISTOR	DTC115EUA-T106		
Q823	8-729-905-34	TRANSISTOR	2SC4081-Q		
Q824	8-729-037-13	TRANSISTOR	KTA1271Y		
Q951	8-729-029-13	TRANSISTOR	DTC143ZUA-T106		
Q952	8-729-040-76	TRANSISTOR	KTA1273-Y-AT		
Q953	8-729-905-34	TRANSISTOR	2SC4081-Q		
Q954	8-729-018-99	TRANSISTOR	2SD2394-F		
Q955	8-729-036-86	TRANSISTOR	KTC3203Y-AT		
Q956	8-729-101-07	TRANSISTOR	2SB798-DL		
		< RESISTOR >			
R101	1-216-833-11	METAL CHIP	10K	5%	1/10W
R102	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R103	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R104	1-216-821-11	METAL CHIP	1K	5%	1/10W
R105	1-216-833-11	METAL CHIP	10K	5%	1/10W
R106	1-216-841-11	METAL CHIP	47K	5%	1/10W
R110	1-216-833-11	METAL CHIP	10K	5%	1/10W
R111	1-216-821-11	METAL CHIP	1K	5%	1/10W
R112	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R113	1-216-853-11	METAL CHIP	470K	5%	1/10W
R114	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R115	1-216-821-11	METAL CHIP	1K	5%	1/10W
R116	1-216-813-11	METAL CHIP	220	5%	1/10W
R117	1-216-817-11	METAL CHIP	470	5%	1/10W
R118	1-216-864-11	SHORT CHIP	0		
R119	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R120	1-216-841-11	METAL CHIP	47K	5%	1/10W
R121	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R122	1-216-813-11	METAL CHIP	220	5%	1/10W
R123	1-216-817-11	METAL CHIP	470	5%	1/10W
R124	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R125	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R127	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R201	1-216-833-11	METAL CHIP	10K	5%	1/10W
R202	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R203	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R204	1-216-821-11	METAL CHIP	1K	5%	1/10W
R205	1-216-833-11	METAL CHIP	10K	5%	1/10W
R206	1-216-841-11	METAL CHIP	47K	5%	1/10W
R210	1-216-833-11	METAL CHIP	10K	5%	1/10W
R211	1-216-821-11	METAL CHIP	1K	5%	1/10W
R212	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R213	1-216-853-11	METAL CHIP	470K	5%	1/10W
R214	1-216-825-11	METAL CHIP	2.2K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R215	1-216-821-11	METAL CHIP	1K	5%	1/10W
R216	1-216-813-11	METAL CHIP	220	5%	1/10W
R217	1-216-817-11	METAL CHIP	470	5%	1/10W
R218	1-216-864-11	SHORT CHIP	0		
R219	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R220	1-216-841-11	METAL CHIP	47K	5%	1/10W
R221	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R222	1-216-813-11	METAL CHIP	220	5%	1/10W
R223	1-216-817-11	METAL CHIP	470	5%	1/10W
R224	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R225	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R227	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R301	1-216-809-11	METAL CHIP	100	5%	1/10W
R302	1-216-809-11	METAL CHIP	100	5%	1/10W
R303	1-216-833-11	METAL CHIP	10K	5%	1/10W
R304	1-216-833-11	METAL CHIP	10K	5%	1/10W
R305	1-216-821-11	METAL CHIP	1K	5%	1/10W
R306	1-216-821-11	METAL CHIP	1K	5%	1/10W
R309	1-216-833-11	METAL CHIP	10K	5%	1/10W
R321	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R322	1-216-821-11	METAL CHIP	1K	5%	1/10W
R323	1-216-833-11	METAL CHIP	10K	5%	1/10W
R324	1-216-857-11	METAL CHIP	1M	5%	1/10W
R325	1-216-821-11	METAL CHIP	1K	5%	1/10W
R326	1-216-821-11	METAL CHIP	1K	5%	1/10W
R468	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R469	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R470	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R471	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R472	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R473	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R474	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R475	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R476	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R477	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R478	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R479	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R480	1-216-821-11	METAL CHIP	1K	5%	1/10W
R481	1-216-821-11	METAL CHIP	1K	5%	1/10W
R483	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R484	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R485	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R486	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R488	1-216-833-11	METAL CHIP	10K	5%	1/10W
R495	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R496	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R497	1-216-845-11	METAL CHIP	100K	5%	1/10W
R498	1-216-797-11	METAL CHIP	10	5%	1/10W
R499	1-216-813-11	METAL CHIP	220	5%	1/10W
R800	1-216-853-11	METAL CHIP	470K	5%	1/10W
R801	1-216-833-11	METAL CHIP	10K	5%	1/10W (TW, KR, AUS)
R802	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT TW, KR, AUS)
R803	1-216-833-11	METAL CHIP	10K	5%	1/10W
R805	1-216-833-11	METAL CHIP	10K	5%	1/10W (SP, TW, KR, TH, AUS)

Ref. No.	Part No.	Description			Remark
R806	1-216-833-11	METAL CHIP	10K	5%	1/10W
				(US, CND, E, MX)	
R807	1-216-817-11	METAL CHIP	470	5%	1/10W
R808	1-216-817-11	METAL CHIP	470	5%	1/10W
R811	1-216-833-11	METAL CHIP	10K	5%	1/10W
R812	1-216-849-11	METAL CHIP	220K	5%	1/10W
R813	1-216-849-11	METAL CHIP	220K	5%	1/10W
R815	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R816	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R817	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R818	1-216-837-11	METAL CHIP	22K	5%	1/10W
R825	1-216-821-11	METAL CHIP	1K	5%	1/10W
R826	1-216-821-11	METAL CHIP	1K	5%	1/10W
R827	1-216-821-11	METAL CHIP	1K	5%	1/10W
R828	1-216-841-11	METAL CHIP	47K	5%	1/10W
R829	1-216-821-11	METAL CHIP	1K	5%	1/10W
R830	1-216-809-11	METAL CHIP	100	5%	1/10W
R831	1-216-813-11	METAL CHIP	220	5%	1/10W
R832	1-216-809-11	METAL CHIP	100	5%	1/10W
R833	1-216-821-11	METAL CHIP	1K	5%	1/10W
R834	1-216-821-11	METAL CHIP	1K	5%	1/10W
R835	1-216-821-11	METAL CHIP	1K	5%	1/10W
R836	1-216-821-11	METAL CHIP	1K	5%	1/10W
R837	1-216-821-11	METAL CHIP	1K	5%	1/10W
R838	1-216-821-11	METAL CHIP	1K	5%	1/10W
R839	1-216-821-11	METAL CHIP	1K	5%	1/10W
R840	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R841	1-216-821-11	METAL CHIP	1K	5%	1/10W
R842	1-216-821-11	METAL CHIP	1K	5%	1/10W
R844	1-216-837-11	METAL CHIP	22K	5%	1/10W
R845	1-216-841-11	METAL CHIP	47K	5%	1/10W
R846	1-216-833-11	METAL CHIP	10K	5%	1/10W
R847	1-216-821-11	METAL CHIP	1K	5%	1/10W
R848	1-216-821-11	METAL CHIP	1K	5%	1/10W
R849	1-216-821-11	METAL CHIP	1K	5%	1/10W
R850	1-216-821-11	METAL CHIP	1K	5%	1/10W
R851	1-216-821-11	METAL CHIP	1K	5%	1/10W
R852	1-216-841-11	METAL CHIP	47K	5%	1/10W
R853	1-216-833-11	METAL CHIP	10K	5%	1/10W
R854	1-216-833-11	METAL CHIP	10K	5%	1/10W
R855	1-216-833-11	METAL CHIP	10K	5%	1/10W
R856	1-216-833-11	METAL CHIP	10K	5%	1/10W
R858	1-216-841-11	METAL CHIP	47K	5%	1/10W
R859	1-216-864-11	SHORT CHIP	0		
R862	1-216-821-11	METAL CHIP	1K	5%	1/10W
R863	1-216-833-11	METAL CHIP	10K	5%	1/10W
R864	1-216-841-11	METAL CHIP	47K	5%	1/10W
R865	1-216-845-11	METAL CHIP	100K	5%	1/10W
R866	1-216-833-11	METAL CHIP	10K	5%	1/10W
R867	1-216-853-11	METAL CHIP	470K	5%	1/10W
R868	1-216-821-11	METAL CHIP	1K	5%	1/10W
R869	1-216-821-11	METAL CHIP	1K	5%	1/10W
R870	1-216-821-11	METAL CHIP	1K	5%	1/10W
R871	1-216-821-11	METAL CHIP	1K	5%	1/10W
R872	1-216-821-11	METAL CHIP	1K	5%	1/10W
R873	1-216-813-11	METAL CHIP	220	5%	1/10W
R874	1-216-813-11	METAL CHIP	220	5%	1/10W
R875	1-216-821-11	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R876	1-216-821-11	METAL CHIP	1K	5%	1/10W
R877	1-216-821-11	METAL CHIP	1K	5%	1/10W
R878	1-216-809-11	METAL CHIP	100	5%	1/10W
R879	1-216-821-11	METAL CHIP	1K	5%	1/10W
R880	1-216-821-11	METAL CHIP	1K	5%	1/10W
R881	1-216-821-11	METAL CHIP	1K	5%	1/10W
R882	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R883	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R884	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R886	1-216-849-11	METAL CHIP	220K	5%	1/10W
R887	1-216-849-11	METAL CHIP	220K	5%	1/10W
R888	1-216-849-11	METAL CHIP	220K	5%	1/10W
R891	1-216-821-11	METAL CHIP	1K	5%	1/10W
R892	1-216-813-11	METAL CHIP	220	5%	1/10W
R893	1-216-841-11	METAL CHIP	47K	5%	1/10W
R894	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R895	1-216-821-11	METAL CHIP	1K	5%	1/10W
R896	1-216-833-11	METAL CHIP	10K	5%	1/10W
R899	1-216-833-11	METAL CHIP	10K	5%	1/10W
R900	1-216-821-11	METAL CHIP	1K	5%	1/10W
R901	1-216-821-11	METAL CHIP	1K	5%	1/10W
R902	1-216-821-11	METAL CHIP	1K	5%	1/10W
R903	1-216-821-11	METAL CHIP	1K	5%	1/10W
R950	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R951	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R952	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R953	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R954	1-216-833-11	METAL CHIP	10K	5%	1/10W
R955	1-216-833-11	METAL CHIP	10K	5%	1/10W
R956	1-216-841-11	METAL CHIP	47K	5%	1/10W
R957	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R958	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R959	1-216-821-11	METAL CHIP	1K	5%	1/10W
R960	1-216-821-11	METAL CHIP	1K	5%	1/10W
R961	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< VIBRATOR >			
X801	1-813-175-21	VIBRATOR, CERAMIC (4.19MHz)			
X802	1-795-915-11	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
	A-1105-360-A	POWER BOARD, COMPLETE			
		**********			
	1-533-233-31	FUSE HOLDER			
		< CAPACITOR >			
C901	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C902	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C903	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C904	1-162-995-11	CERAMIC CHIP	0.022uF		50V
C906	1-126-964-11	ELECT	10uF	20%	50V
C908	1-165-128-11	CERAMIC CHIP	0.22uF		16V
		< CONNECTOR >			
CN903	1-815-551-11	PIN, CONNECTOR (PWB) 3P			

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D901	8-719-063-79	DIODE 1N4002B			
D902	8-719-063-79	DIODE 1N4002B			
D903	8-719-063-79	DIODE 1N4002B			
D904	8-719-063-79	DIODE 1N4002B			
**********					
	A-1105-354-A	TUNER BOARD, COMPLETE (US, CND, E, MX)			
	A-1105-355-A	TUNER BOARD, COMPLETE			
					(SP, TW, KR, TH, AUS)
		**********			
	2-582-141-01	TERMINAL, ANT			
		< CAPACITOR >			
C1	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C4	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C7	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C8	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C9	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C10	1-126-960-11	ELECT	1uF	20%	50V
C11	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C12	1-126-963-11	ELECT	4.7uF	20%	50V
C13	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
					(US, CND, E, MX)
C14	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
					(SP, TW, KR, TH, AUS)
C14	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
					(US, CND, E, MX)
C15	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
					(SP, TW, KR, TH, AUS)
C15	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
					(US, CND, E, MX)
C18	1-126-923-91	ELECT	220uF	20%	10V
C20	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C21	1-126-960-11	ELECT	1uF	20%	50V
C22	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C23	1-126-960-11	ELECT	1uF	20%	50V
C24	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C26	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C27	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C29	1-104-658-91	ELECT	100uF	20%	10V
C30	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C31	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C32	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C33	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C34	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C35	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C37	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C39	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C41	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C42	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C43	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C47	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C49	1-161-051-00	CERAMIC	0.01uF	10%	25V
C51	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C52	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C53	1-137-190-91	FILM	0.22uF	5%	50V
C54	1-126-923-91	ELECT	220uF	20%	10V
C55	1-162-927-11	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description			Remark
C56	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C57	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C59	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C60	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C61	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C62	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C63	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C65	1-126-963-11	ELECT	4.7uF	20%	50V
C66	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C68	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C77	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
					(SP, TW, KR, TH, AUS)
C78	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
					(SP, TW, KR, TH, AUS)
C80	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C95	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< FILTER >			
CF2	1-760-235-81	FILTER, CERAMIC			
CF4	1-781-962-21	FILTER, CERAMIC			
		< CONNECTOR >			
CNP1	1-568-854-11	CONNECTOR 11P			
		< TRIMMER >			
CT1	1-141-442-91	CAP, CERAMIC TRIMMER			
CT3	1-141-304-21	CAP, CERAMIC TRIMMER			
		< DIODE >			
D1	8-719-078-48	DIODE KV1471ETR-G			
D2	8-719-078-48	DIODE KV1471ETR-G			
D3	8-719-050-69	DIODE KV1520N			
D10	8-719-988-61	DIODE 1SS355TE-17			
D11	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC1	6-700-512-01	IC TA2149BN			
IC2	8-759-483-40	IC LC72137M-TLM-E			
		< JUMPER RESISTOR >			
JC1	1-216-864-11	SHORT CHIP	0		
JC2	1-216-864-11	SHORT CHIP	0		
JC3	1-216-864-11	SHORT CHIP	0		
JC4	1-216-864-11	SHORT CHIP	0		
JC5	1-216-864-11	SHORT CHIP	0		
JC6	1-216-864-11	SHORT CHIP	0		
JC11	1-216-864-11	SHORT CHIP	0		
JC12	1-216-864-11	SHORT CHIP	0		
JC13	1-216-864-11	SHORT CHIP	0		
JC24	1-216-864-11	SHORT CHIP	0 (SP, TW, KR, TH, AUS)		
JC33	1-216-864-11	SHORT CHIP	0		
JC34	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L1	1-409-775-11	COIL, AIR-CORE			
L2	1-416-509-11	COIL, AIR-CORE			
L3	1-754-117-12	ANTENNA, FERRITE-ROD (MW)			

Ref. No.	Part No.	Description			Remark
L4	1-411-234-21	COIL, AM OSC			
L11	1-414-142-11	INDUCTOR	1uH (US, CND, E, MX)		
L21	1-410-509-11	INDUCTOR	10uH		
		< RESISTOR >			
R1	1-216-817-11	METAL CHIP	470	5%	1/10W
R2	1-216-817-11	METAL CHIP	470	5%	1/10W
R3	1-216-833-11	METAL CHIP	10K	5%	1/10W
R4	1-216-833-11	METAL CHIP	10K	5%	1/10W
R5	1-216-821-11	METAL CHIP	1K	5%	1/10W
R10	1-216-805-11	METAL CHIP	47	5%	1/10W
R11	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R13	1-216-821-11	METAL CHIP	1K	5%	1/10W
R14	1-216-821-11	METAL CHIP	1K	5%	1/10W
R24	1-216-813-11	METAL CHIP	220	5%	1/10W
R30	1-216-837-11	METAL CHIP	22K	5%	1/10W
R31	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R32	1-216-845-11	METAL CHIP	100K	5%	1/10W
R33	1-216-833-11	METAL CHIP	10K	5%	1/10W
R40	1-216-849-11	METAL CHIP	220K	5%	1/10W
R41	1-216-833-11	METAL CHIP	10K	5%	1/10W
R50	1-216-821-11	METAL CHIP	1K	5%	1/10W
R51	1-216-833-11	METAL CHIP	10K	5%	1/10W
R52	1-216-864-11	SHORT CHIP	0		
R53	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R54	1-216-817-11	METAL CHIP	470	5%	1/10W
R55	1-216-833-11	METAL CHIP	10K	5%	1/10W
R56	1-216-813-11	METAL CHIP	220	5%	1/10W
R57	1-216-809-11	METAL CHIP	100	5%	1/10W
R58	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R59	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R60	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R61	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R63	1-216-833-11	METAL CHIP	10K	5%	1/10W
R65	1-216-833-11	METAL CHIP	10K	5%	1/10W
R91	1-216-813-11	METAL CHIP	220	5%	1/10W
R92	1-216-813-11	METAL CHIP	220	5%	1/10W
R94	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< TRANSFORMER >			
T1	1-433-741-11	TRANSFORMER, IF			
T2	1-419-465-11	COIL (DET)			
		< VIBRATOR >			
X1	1-795-449-11	VIBRATOR, CRYSTAL (75kHz)			
**********					
		MISCELLANEOUS			
		**********			
6	1-830-710-11	CABLE, FLEXIBLE FLAT (4 CORE)			
64	1-830-379-11	CABLE, FLEXIBLE FLAT (11 CORE)			
105	1-452-899-11	MAGNET			
160	1-828-377-11	WIRE (FLAT TYPE) (23 CORE)			
163	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)			
208	1-962-797-11	CABLE, FLEXIBLE FLAT (11 CORE)			
⚠501	8-848-483-12	OPTICAL PICK-UP (KSS-213C/C2RP1)			

Ref. No.	Part No.	Description	Remark
505	X-2162-709-2	CHASSIS ASSY (CDP), MOTOR (including M401 (SPINDLE))	
ANT1	1-754-241-11	ANTENNA, TELESCOPIC	
⚠F902	1-533-450-12	FUSE, GLASS TUBE (DIA. 5) (2.5A/125V)	(US, CND, E, MX, TW)
⚠F902	1-533-468-12	FUSE, GLASS TUBE (DIA. 5) (2A/250V)	(SP, KR, TH, AUS)
⚠J901	1-526-818-11	INLET, AC (E, MX)	
⚠J901	1-526-838-11	INLET, AC 2P (SP, TW, KR, TH, AUS)	
⚠J901	1-540-009-11	INLET, AC (US, CND)	
M402	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	
S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	
S801	1-692-960-11	SWITCH, PUSH (1 KEY)	(CD LID OPEN/CLOSE DETECT)
SP101	1-826-212-11	SPEAKER (10cm) (L-ch)	
SP201	1-826-212-11	SPEAKER (10cm) (R-ch)	
⚠T901	1-435-917-21	TRANSFORMER, POWER (US, CND, E, MX, TW)	
⚠T901	1-435-918-21	TRANSFORMER, POWER (SP, KR, TH, AUS)	
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		ACCESSORIES	
		**********	
⚠	1-590-342-12	CORD, POWER (E, MX)	
⚠	1-769-412-22	CORD, POWER (SP, TH)	
⚠	1-776-985-12	CORD, POWER (KR)	
⚠	1-782-126-11	CORD, POWER (US, CND)	
⚠	1-827-945-12	CORD, POWER (AUS)	
⚠	1-829-433-11	CORD, POWER (TW)	
	2-593-810-12	MANUAL, INSTRUCTION (ENGLISH)	(US, CND, E, TW)
	2-593-810-21	MANUAL, INSTRUCTION (FRENCH) (CND)	
	2-593-810-31	MANUAL, INSTRUCTION (ENGLISH, SPANISH)	(SP, KR, TH, AUS)
	2-593-810-41	MANUAL, INSTRUCTION (FRENCH, GERMAN)	(SP)
	2-593-811-11	MANUAL, INSTRUCTION (SPANISH) (E, MX)	
	2-593-811-21	MANUAL, INSTRUCTION (KOREAN) (KR)	
	2-593-811-31	MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (TW)	
	2-598-716-11	MANUAL, INSTRUCTION (for SonicStage) (ENGLISH) (US, CND, E, TW)	
	2-598-716-21	MANUAL, INSTRUCTION (for SonicStage) (FRENCH) (CND)	
	2-598-716-31	MANUAL, INSTRUCTION (for SonicStage) (ENGLISH, SPANISH) (SP, KR, TH, AUS)	
	2-598-716-41	MANUAL, INSTRUCTION (for SonicStage) (FRENCH, GERMAN) (SP)	
	2-598-717-11	MANUAL, INSTRUCTION (for SonicStage) (KOREAN) (KR)	
	2-598-717-21	MANUAL, INSTRUCTION (for SonicStage) (TRADITIONAL CHINESE) (TW)	
	2-598-717-31	MANUAL, INSTRUCTION (for SonicStage) (SPANISH) (E, MX)	
	3-267-151-01	LID BATTERY (for RMT-CYN7A)	(for BLACK, SILVER)
	3-267-151-21	LID BATTERY (for RMT-CYN7A) (for WHITE)	
	A-1056-325-A	REMOTE COMMANDER (RMT-CYN7A/HC)	(for SILVER)
	A-1109-498-A	REMOTE COMMANDER (RMT-CYN7A/BC)	(for BLACK)

Ref. No.	Part No.	Description	Remark
	A-1109-500-A	REMOTE COMMANDER (RMT-CYN7A/WC)	(for WHITE)
	X-2059-463-1	CD-ROM (APPLICATION) ASSY (SS3.0)	(SonicStage)

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REVISION HISTORY

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Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2005.04	New
1.1	2005.06	Addition of Thai model Revision of electrical parts Revision of mechanical parts
1.2	2005.07	Addition of E model